

# Park



# Ellis Woods Park

## Master Site Plan

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East Coventry Township, Chester County, PA

January 2004

Prepared for:

**East Coventry Township Board of Supervisors**

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# Ellis Woods Park

## Master Site Plan

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East Coventry Township, Chester County, PA

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ACKNOWLEDGMENTS.....i

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## Introduction

In the early 1980's the East Coventry Township Board of Supervisors acquired two parcels totaling approximately 18 acres with the intent of developing community facilities to serve its constituents. Centrally located within the Township, the tract was developed to house the Township Municipal Building in which the Administrative and Police Departments are situated, as well as a garage and yard area for the Public works Department. The remaining portions of the property consist of open maintained grass areas and woodlands.

In anticipation of the increasing population and recent development pressures within the Township, and the growing need for additional open space and recreational opportunities, the East Coventry Township Board of Supervisors initiated the development of a park master plan for Ellis Woods Park to create a community facility to meet the growing needs of the community and protect the natural resources of the park.

This master plan explores the options for the development of Ellis Woods Park. The process of developing the master plan considered the potential park users, the park site characteristics, adjacent land uses, municipal recreation needs and goals, and the desires of the community. A public participation process was undertaken to gain input from the residents regarding appropriate park facilities. Public participation included working with a Study Committee, completing key person interviews, conducting a random citizen survey, and holding public meetings. The process emphasized citizen input to develop a relevant master plan that targets existing and future recreation needs of the Township.

## Community Background

East Coventry Township is a rural community with limited public facilities. A total of three parks exist within the Township including Towpath Park, Heyser Park, and Ellis Woods Park. Towpath Park is developed with pavilions, open space, tot lots, and access drive and parking area and a boat launch while the Heyser Tract remains undeveloped. A development plan was completed in 1999 For Heyser Park for the development of an athletic complex but the plan was never implemented. Proposed facilities included a premier stadium field, premier baseball field, five mutli-purpose fields, restrooms and pavilions and associated site amenities.

Between 1990 and 2000 the population of East Coventry grew insignificantly increasing from 4,450 in 1990 to 4,566 in 2000 according to census data from Chester County. However, information provided by the Township indicates that the Township will grow almost 50-percent in the next 4 years. Development plans currently underway propose over 800 dwelling units which equates to more than 2500 new residents. The sudden growth has resulted in an overall need for expanded recreation facilities in the municipality as well as tools to plan, guide and direct future growth within the Township.

Of the total 2000 population 1,144 are children and youth ages 19 years and younger and 2,084 are adults between the ages of 25 to 54 years old. Together these age groups encompass over 71-percent of the municipal population. The median age of the municipality is 42.7 years old. These statistics illustrate the need for recreation facilities geared toward families and youth.

## Ellis Woods Park Master Planning Process

The planning process for Ellis Woods Park Master Plan was designed to create a vision for the site, a vision that harnesses the site's opportunities while protecting the natural resources. The process included five parts:

1. Inventory and Assessment

2. Public Participation
3. Development of Alternative Designs
4. Final Design
5. Operations, Management, Maintenance and Financing

## 1. Inventory and Assessment

The development of the Conceptual Alternatives for Ellis Woods Park was guided by the analysis of the site's natural resources, the surrounding land uses, and the functions and proposed improvements to the existing Municipal Building.

Site visits were conducted throughout the planning process to evaluate the site characteristics, observe site opportunities, and field view existing conditions and operations. Chapter 3 – Site Analysis of Ellis Woods Park documents the findings of the inventory and assessment phase of the planning process.

## 2. Public Participation

To assure that the design for the park is community based, broad citizen input was critical. Input from local citizens was gathered in four ways; working with a park study committee, completing a citizen survey, conducting key person interviews with residents having specific recreation interests, and presenting the project at public meetings.

### *Park Study Committee*

The park study committee was formed to guide the development of the park master plan and work with the design consultants. The committee consisted of a member of the Planning Commission, Park & Recreation Board members, a Township Supervisor, Township staff, a High School student representative, neighbors of the park, and general citizens. The committee met initially to establish goals for the park. The committee provided input throughout the planning and design process including five meetings to review of the site analysis, citizen input, the three sketch alternative plans, the pre-final master plan, project phasing, and the final master plan.

### *Citizen Survey*

A direct mail survey to assess public opinion about the development of Ellis Woods Park was conducted as part of the Master Planning process. The survey was used to determine public opinions, ideas, and concerns regarding the development of Ellis Woods Park. Outcomes and conclusions of the citizen survey can be found in Appendix A.

### *Key Person Interviews*

The consulting team conducted a series of key person interviews with key stakeholders for the park. Interviewees provided insight into the significance of the geographical location of the park, existing park uses, functions of the municipal complex, and development issues facing the Township and surrounding areas.

### *Public Meeting*

Two public meetings were held to provide public input into the planning process. The pre-final master plan was presented at the first public meeting, which was attended by approximately 10 residents including members of the park study committee and Township Administration. Attendees provided valuable insights into the park design, the site, neighborhood, and recreation needs of the community. Comments regarding the pre-final master plan are outlined in Chapter 4 –Design Alternatives.

The second public meeting to present the final master plan was attended by approximately 15 citizens. The plan was well received and there were no comments.

### **3. Development of Conceptual Alternative Designs**

Three conceptual alternative designs for Ellis Woods Park were developed as part of the planning process. The alternatives were composed to achieve various park goals and explore park development opportunities. Following review of the alternative designs a Pre-Final Master Plan for Ellis Woods Park was developed.

### **4. Final Design**

This phase of the planning process involved the preparation of a detailed park design and determination of development costs. The final design was developed in collaboration with the study committee.

### **5. Operations, Management, Maintenance and Financing**

Park operations are the most significant lifetime cost of a park. The planning process included outlining an effective management plan for Ellis Woods Park. This plan includes recommendations for programs, staffing, park maintenance management and security. Park financing was explored with an emphasis on partnerships and alternative funding sources.

## **Conclusion**

Ellis Woods Park provides a community park that meets the current needs of the community while providing the flexibility to meet future needs. The park preserves areas of open space and protects the existing woodlands. The process of developing the master plan considered the potential park users, the park site characteristics, adjacent land uses, municipal recreation needs and goals, and the desires of the community. The process emphasized citizen input to develop a relevant master plan that targets existing and future recreation needs of the Township.





Public participation was a key component of the Ellis Woods Master Plan planning process. Public participation was important for the following reasons:

1. Local residents and authorities have useful information to contribute to the development of the plan.
2. It provides a forum in which concerns and ideas could be identified, aired, and addressed.
3. Stewardship and trust are established through community interaction and involvement.

Public input was gathered by working with the Ellis Woods Study Committee, completing key person interviews, completing a citizen survey to identify the needs and desires of the community, and holding public meetings to review both the pre-final and final master plan design.

## Ellis Woods Park Study Committee

The goals and objectives for Ellis Woods Park were discussed at a meeting on July 23, 2002 with the study committee established for the master plan project. The group focused on brainstorming three questions that were designed to define the type of park that will meet the existing and future recreation needs of East Coventry Township residents while being compatible with the park site. The questions and discussions are outlined below:

### *Question No. 1: Who are the potential park users?*

- ☐ Children
- ☐ Families
- ☐ Seniors
- ☐ Pet owners
- ☐ Walkers
- ☐ Athletes
- ☐ School groups
- ☐ Soccer groups
- ☐ Scouts
- ☐ Nature lovers
- ☐ Summer playground groups
- ☐ Equestrians

### *Question No. 2: What facilities would you like to see at the Ellis Woods Park site?*

- ☐ Sledding/winter use areas
- ☐ Soccer practice area
- ☐ Picnic pavilions – large and small, no larger than at Towpath Park – 6-10 tables
- ☐ Trails – walking, equestrian use
- ☐ Playground
- ☐ Spray fountain associated with the playground
- ☐ Tennis courts

- ❑ Basketball courts
- ❑ Volleyball courts
- ❑ Small amphitheater - maybe associated with the playground
- ❑ Skate park/in-line hockey rink
- ❑ Gazebo – area for community events, weddings, setting with gardens
- ❑ Restrooms – suggest that the restrooms could be part of the municipal building expansion. Provide exterior access from the park to restrooms in the building.
- ❑ Additional parking
- ❑ Drinking fountains and other typical park amenities

***Question No. 3: What opportunities and concerns do you have about the project?***

- ❑ Opportunity to connect trails to the adjacent residential subdivision that is currently before the Township as a Preliminary Plan.
- ❑ It will be important to define the park boundary so that users do not encroach on private property.
- ❑ It was noted that the presence of the municipal police force at the site will help with security and makes the site a good location for teen activities.
- ❑ There is a need to separate the Road Department facilities, materials, and equipment from the park. Limit visual and physical access.
- ❑ Lighting. This may be a good location to provide lights on courts for night use.
- ❑ The trails should connect to Pigeon Creek, a designated greenway throughout the Township. The park should provide trail head facilities.
- ❑ Consider the requirements of the Americans with Disabilities Act in development of the master plan.

## Key Person Interviews

The consulting team conducted a series of key person interviews to obtain input regarding the Ellis Woods property and the concept of developing a public park at the site. Information was gathered regarding historical and current information about the property and improvements they would like to see at Ellis Woods Park. Input was gathered from citizens and township officials including: East Coventry Elementary School representative, East Coventry Township Emergency Management representative, East Coventry Township Chief of Police, local pastor, a senior resident, representative from area scouting organization, adjacent property owners, local equestrian group, and others familiar with the history and resources of the site. Generally, interviewees were interested in preserving the site’s natural resources while providing maximum active recreational opportunities within the open areas surrounding the existing municipal complex.

Additionally, recreation opportunities and concerns identified in the *East Coventry Township Ellis Woods Park Public Opinion Survey* were incorporated and considered throughout the design process. See Appendix A for tabulation of the responses to the Recreation Needs Survey.

The following thoughts summarize the outcomes of the key person interviews.

- ❑ The park should provide active recreation facilities within the area of the Municipal Complex. Active facilities would include paved courts such as basketball, tennis, or skate park.

- ❑ Heiser Park will be developed to be more of an active park and provide athletic fields; therefore this park should be developed with more passive recreational opportunities.
- ❑ Adequate parking areas must be provided to support the proposed facilities.
- ❑ The location of the park next to the Municipal Complex should be viewed as a benefit.
- ❑ The woodlands should be preserved.
- ❑ Facilities should be developed for family type activities.
- ❑ The biggest need in the Township is a skate park. In-Line skating, picnic, and walking trails are also needed.
- ❑ Provide a safe place for kids to play.
- ❑ The park is centrally located within the Township.
- ❑ Facilities that enable kids to exercise should be considered.
- ❑ The existing footbridge is in disrepair and should be replaced. A replacement bridge that would provide emergency access to the rear of the property should be considered.
- ❑ The park is well suited for the development of picnic facilities.
- ❑ Improvements to the park could lead to the park becoming a hangout.
- ❑ Enhance the existing wildlife habitats.
- ❑ Provide an area for small group picnics.
- ❑ Restroom facilities should be provided.
- ❑ The park site is centrally located and is designated as a staging area for emergency management. Provisions should be included in the plan for securing the site, allowing for large group gatherings, and providing truck access.
- ❑ Facilities should be dual purpose to accommodate recreation uses as well as emergency management.
- ❑ Parking areas should be maximized.
- ❑ Facilities for family activities including playgrounds and picnic areas should be provided.
- ❑ Public vs. private lands is not defined along the property's northwestern boundary.
- ❑ If lighting is proposed for the park facilities then light pollution will become a major concern for the adjacent residents.
- ❑ Security and liability issues must be addressed with the adjacent property owners since there is no spatial definition between the properties.
- ❑ The site should be preserved as open space.
- ❑ A skate park, inline rink, BMX facility and basketball courts are desired facilities by area teens.
- ❑ Provide open space for passive recreation such as pick up football.
- ❑ A horse barn is located northeast of the park and boards approximately 25 horses. There are between 10 and 15 equestrians that currently utilize the site, primarily the wooded area along the creek designated as the Pigeon Creek Greenway. Riders enter the park along the eastern property line adjacent to the existing hedgerow of the Strutynski Property that is currently being developed. The property owner northwest of the park has posted the area along the creek. Equestrians ride along the northwestern boundary to Ellis Woods Road to the existing bridge where they return adjacent to the

creek. No additional facilities are desired other than establishing the trails and providing a loop trail within the park.

Additional comments and information provided included:

- ❑ A gate will be installed to control access to the maintenance and police areas.
- ❑ A chain link fence is proposed to separate the municipal operations from the park areas as part of the proposed building expansion.
- ❑ The police station expansion will include a separate entrance that would allow park users access to the restroom facilities.
- ❑ The Township currently has a lighting ordinance in place to control lighting levels within the Township.
- ❑ The site analysis mapping depicts a potential pedestrian connection to the adjacent proposed Creekview Subdivision. The Township's Park and Recreation Board had previously proposed this pedestrian connection. Currently the proposed subdivision plan does not provide provisions for pedestrian connections.
- ❑ The lower portion of the park site is isolated and far removed. Security measures must be addressed for this area of the park.

## Goals for Ellis Woods Park

The brainstorming sessions with the study committee and input received from key person interviews were translated into specific goals for Ellis Woods Park.

### ***Goal 1: Provide a community park that meets the recreational needs of East Coventry Township residents.***

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#### **Objectives:**

- ❑ Provide a variety of recreation facilities that encourage use of the park by citizens of diverse ages, interests, and abilities.
- ❑ Provide a balance of active and passive facilities based on community need, site constraints and opportunities.
- ❑ Develop the park master plan with consideration of a realistic budgetary program, responsible fiscal planning, and funding opportunities.
- ❑ Develop facilities and activity areas that have low impact on the environment and natural resources.

### ***Goal 2: Develop the site to accommodate a wide variety of users.***

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#### **Objectives:**

- ❑ Provide facilities to accommodate small group gatherings such as church groups, small plays and performances, and family reunions.
- ❑ Accommodate the existing park users.
- ❑ Provide facilities that appeal to citizens of all ages, interests, and abilities.
- ❑ Create a year-round park that allows for winter sports as well as popular summer recreation activities.

***Goal 3: Design the park with considerations of the site's natural character, site limitations, and surrounding land uses.***

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**Objectives:**

- ❑ Develop a park design that respects the site's existing rolling topography and the existing woodlands.
- ❑ Develop a park design that considers the current and future developments of the adjacent properties.
- ❑ Develop a park design that compliments and works in concert with the existing municipal complex.

***Goal 4: Preserve and protect the site's natural resources.***

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**Objectives:**

- ❑ Preserve and protect the site's natural resources through sensitive planning and design.
- ❑ Preserve the existing internal and external scenic views to the surrounding landscape.
- ❑ Enhance the site's natural resources and natural areas to promote the health of ecosystems, wildlife habitats, and biodiversity.
- ❑ Address control of invasive species present on the site.

## **Public Meetings**

A public meeting to review the Pre-Final Ellis Woods Park Master Plan was held on March 31, 2003 at the East Coventry Township Building. Attendees provided a local perspective into the recreation needs of the community and potential use of the park. Discussion of the public meeting is further detailed in Chapter 4 – Alternative Designs.

The second public meeting was held October 20, 2003 to review the final master plan and was attended by approximately 10 (ten) citizens. The plan was well received and comments, questions, and discussions were limited to the DCNR funding process, and the necessary steps required to complete and adopt the plan.



## Introduction

The Site Analysis Map, on page 3-3, documents the observations of the site visits, conclusions from the site analysis, and information previously documented regarding the site.

Through the planning process an extensive inventory and analysis of the site was completed to gain an understanding of the site's natural resources and an assessment of possible recreation opportunities that could be introduced. This inventory and analysis is critical for the following reasons:

- ❑ To evaluate the site's natural resources and determine appropriate protection and enhancement strategies.
- ❑ To evaluate the ability of the park's natural resources to sustain and thrive with the introduction of recreation opportunities and/or public use of the site.
- ❑ To explore the natural resources that contributes to the park user's experience.
- ❑ Good design is born of good analysis.
- ❑ To become familiar with the context of the region and the site.
- ❑ Development costs are greatly influenced by the ease of construction and compatibility of the proposed development with the natural systems of the park.

## Location

East Coventry Township is located south of Pottstown along the northern boundary of Chester County. Neighboring municipalities include North and South Coventry Townships to the west, Montgomery County to the north, and East Vincent Township to the east and south. The proposed Municipal Park site is adjacent to the existing Township Municipal Complex, which is centrally located within East Coventry Township.

The study area for the Municipal Park site is comprised of two parcels totaling approximately 17.75 acres. The Municipal complex, which includes the Township Building, Police Facilities, and Public Works Department, is located on approximately 7.82 acres while the remaining 9.93 acres is mostly wooded.

## Adjacent Land Uses

Single-family residential lots surround the park site. The northern boundary is adjacent to Pigeon Creek and contains an easement for the Pigeon Creek Greenway. The southern boundary is formed by Ellis Woods Road and contains approximately 378 linear feet of road frontage.

## Wetlands

The base mapping completed for the park master site plan did not identify wetlands. A review of the Department of Interior "National Wetlands Inventory" did not indicate the presence of wetlands within the immediate area. However, the sites proximity to Pigeon Creek and the tributary bisecting the existing woodlands should be evaluated for the presence of wetlands associated with the stream banks. The Chester County Soil Conservation District has identified the Croton Silt Loam, located along the Park's eastern boundary as having hydric components. A complete wetlands investigation will be required to identify the extent and location of wetlands prior to development of the park.

## Soils

The U.S. Department of Agriculture (USDA), Soil Conservation Service, Soil Survey for Chester County, Pennsylvania indicates that the site has four soil classifications: Croton Silt Loam – (CrB), Penn Silt



## Site analysis map

Loam – (PmB2) and (PmC2), Readington Silt Loam – (RdB2), and Rowland Silt Loam (Ro). These soil series are characterized as moderately sloping, with moderate erosion potential, and shallow depths to bedrock. The water table is near the surface, within 6 inches for the Croton series, 1-2 feet for Readington and Rowland series, and greater than 5 feet for the Penn series. The Croton, Readington and Rowland soils series are noted as having high water tables and the potential for flooding which is a severe limitation for the development of recreational facilities such as paths, trails, and picnic and play areas. A majority of the park acreage is located within the Penn series, which is characterized as having a fair suitability for topsoil. Modification of the soils must be considered as part of the development of sports fields, lawn areas, playgrounds, and trails.

## Area Characteristics

The site is naturally divided into three distinct environs by the, topography and existing vegetation. The three primary areas include the Municipal Complex, which occupies western portion of the site, the floodplain areas associated with the Pigeon Creek and adjacent tributary, and the wooded areas surrounding the secondary ridge. These primary areas have been further defined as shown on the site analysis map and are described below:

**Area A:** This area is developed and includes the Township Building, Police facilities, and Public Works Departments. General site observations include:

- ❑ A future expansion of the municipal building is proposed to connect the garage areas and the existing one story brick building.
- ❑ The rear of this area is utilized by the Public Works Department for storage of materials including road salt, stone, construction debris, and mulch.
- ❑ Primary access to the park and parking area is thru Area, A which includes a 24-space parking lot.
- ❑ A public telephone was located within the existing parking area at the time of the survey. The telephone has since been removed.
- ❑ Posted Speed limit along Ellis Woods Road is 35 mph.
- ❑ Three-phase service is located adjacent to the property.
- ❑ A sign identifying the nature trail is located adjacent to the parking area. The trail is a grass trail that leads to the woodland and is not defined or accessible.
- ❑ The municipal complex is served by an on lot well and septic system located at the rear of the building.
- ❑ The Creekview development currently being planned on the adjacent property will extend public sewer on the north side of Pigeon Creek. The parcels south of the Creek will be served by on lot systems.
- ❑ With the exception of the banks that define the Public Works storage area, slopes within the area are less than six-percent.

**Area B:** This area consists of an open lawn area adjacent to the Township Municipal Building. General site observations include:

- ❑ A natural highpoint divides the area into two drainage areas.
- ❑ The area is maintained as an open lawn area and is utilized as a soccer practice facility.
- ❑ Although there are several markers to delineate the property line, the field area continues into the adjacent residential lot.

- ❑ The area is very open and defined only by the Municipal Complex to the east, woodlands to the north, and parking area to the south.
- ❑ Slopes within the area are generally less than six-percent.

**Area C:** This area is comprised of two isolated pockets of open maintained lawn areas that are adjacent to the existing woodlands. General site observations include:

- ❑ Both pockets are defined by the edge of the woodlands, and the sloped banks within the area.
- ❑ The areas serve as a sloped transition between the existing ridge associated with Areas A and B and the lower floodplain areas.
- ❑ The majority of the area consists of slopes from six to 15-percent with some area ranging between 15 and 25-percent.
- ❑ A small debris pile of waste construction material is located adjacent to the edge of the woodland.

**Area D:** This area is comprised of two pockets of woodlands that are defined by the existing stream, extent of woodlands, and the small tributary that flows to Pigeon Creek. General site observations include:

- ❑ The small pocket west of the existing tributary serves as the entrance to the woods. An earthen trail leads to an existing pedestrian bridge that serves as a link between the two wooded areas.
- ❑ Invasive species including multi-flora rose are associated with the western edge of the woodlands in Area D.
- ❑ The majority of the area consists of slopes from 15 to 25-percent with some area ranging between six and 15-percent and some areas greater than 25-percent.
- ❑ The Woodland consists of predominantly mature hardwoods including maples, poplars and beech.
- ❑ Several large boulders are located within the westernmost portion of the woodlands. A small clearing with a defined driveway leads to these boulders.
- ❑ There are significant internal views of the wooded hillside from the lower area adjacent to the stream banks.
- ❑ An existing earthen trail connects to the earthen trail adjacent to Pigeon Creek.
- ❑ An informal connection to the park is being utilized along the existing hedgerow along the eastern property line.

**Area E:** This area is associated with the stream banks of the existing tributary and Pigeon Creek.

- ❑ The tributary channel and adjacent banks are lined with rock outcroppings.
- ❑ The area is relatively flat and is defined by the adjacent stream and tributary.
- ❑ The Pigeon Creek Greenway is located within this area and is defined as an earthen trail along Creek.

## General Site Observations

The following general site observations were made during the design team field investigation on January 13, 2003.

- ❑ There is evidence of various wildlife habitats within the woodlands including deer, and small mammals.
- ❑ The woodlands west of the intersection of the tributary and Pigeon Creek is posted.
- ❑ Equestrians appear to be one of the more frequent users of the park.

- ❑ There is a stone row adjacent to the stream bank that appears to be utilized as a watering hole by the equestrians.
- ❑ Pigeon Creek is classified as a high quality stream.
- ❑ The existing trails throughout the woodlands and adjacent to the stream bank have been routinely maintained. The brush and fallen branches and trees have recently been cleared.
- ❑ A sitting area with benches is located along the crest of the ridge top within the woods.
- ❑ The Limerick Nuclear Power Plant Cooling Towers can be viewed from the edge of the woodlands along the eastern property line.
- ❑ The adjacent property along the northwestern boundary is currently being subdivided. The proposed Creekview development includes 81 new homes, 20 lots in the FR zone south of the creek, and 61 lots within the R2 zone north of the creek.
- ❑ The Creekview development plan includes a 20 ft. easement on the south side of Pigeon Creek that allows for the continuation of the proposed Pigeon Creek Greenway.
- ❑ A bridge would be required to provide pedestrian access to the park and proposed greenway for the neighborhoods north of Pigeon Creek.
- ❑ The section of Pigeon Creek adjacent to the property is relatively shallow.

## Conclusions

- ❑ Pedestrian routes and/or connections should be established to safely encourage use of the park from the surrounding neighborhoods.
- ❑ Landscaping should be used to define the parks western boundary and buffer the existing residents.
- ❑ Active recreational facilities should be maximized within the ridge top area (Areas A and B).
- ❑ The open lawn area west of the existing building (Area B) is approximately 180' wide. This narrow width will limit the types of active recreation facilities that can be safely accommodated within the space.
- ❑ The existing footbridge does not allow access for emergency vehicles.
- ❑ The existing entry drive is centered along the property frontage and limits the addition of another drive.
- ❑ Existing woodlands should be protected and preserved.
- ❑ The existing earthen trails should be developed to provide handicap accessibility.
- ❑ Improvements to the park must be coordinated with the existing land uses in order to minimize impacts to the existing facilities and operations.
- ❑ The woodlands and tributary are natural boundaries that divide the park. The area east of the tributary is remote and separated from the municipal complex.
- ❑ Passive recreation opportunities should be enhanced within Areas C and D.
- ❑ Develop a program to eradicate and manage invasive species.
- ❑ Minimize development impacts to the natural areas.
- ❑ Protect, preserve, and enhance the existing wildlife habitats and natural areas.
- ❑ Design walkways to control pedestrian movements between the municipal building and the proposed park facilities. Walkways should also link the proposed park improvements to the proposed restrooms that are to be installed as part of the building expansion.

# Ellis Woods Park

## Site Analysis

East Coventry Township  
Chester County, Pennsylvania  
January 2003

Prepared for:  
EAST COVENTRY TOWNSHIP

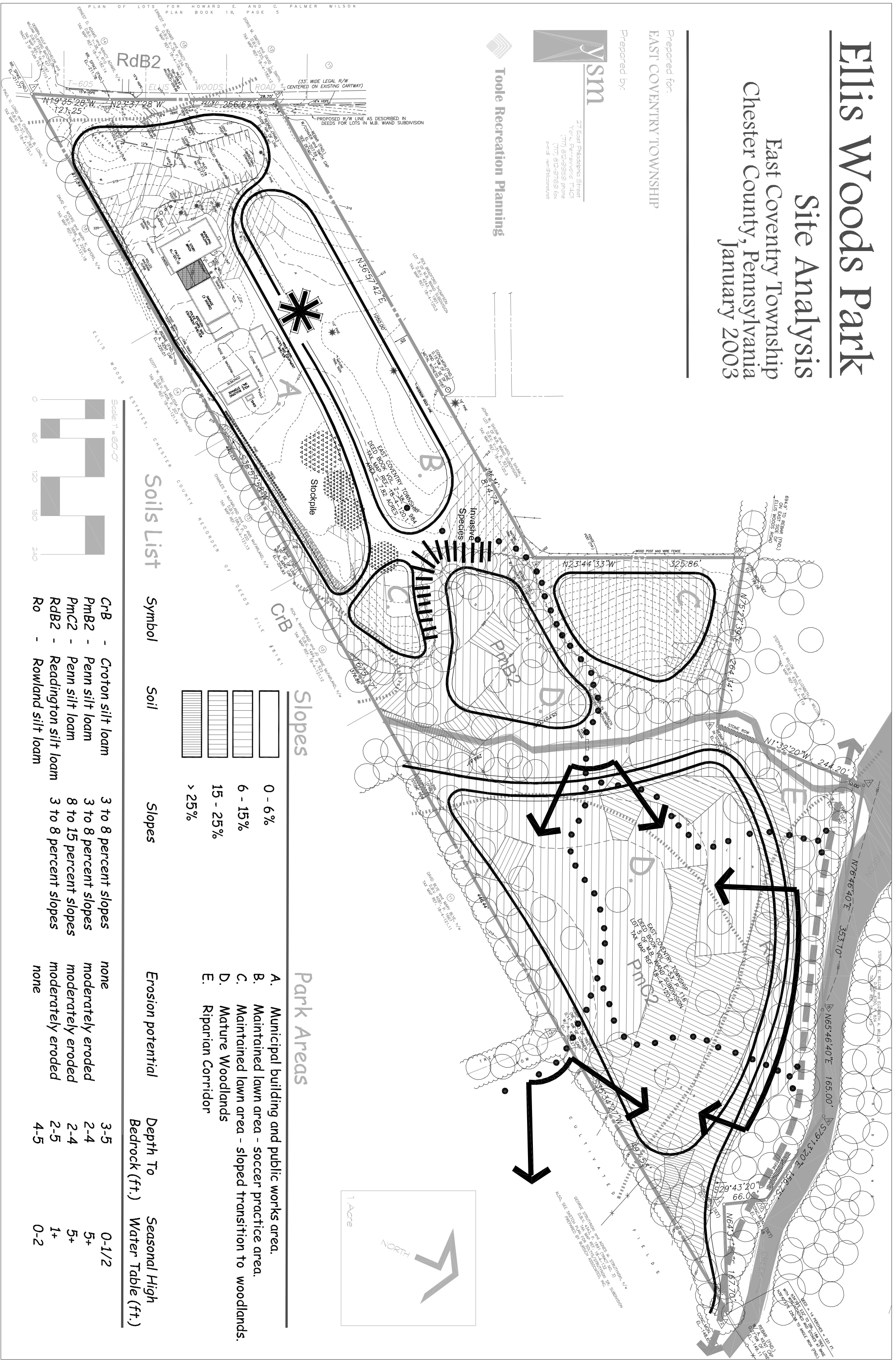
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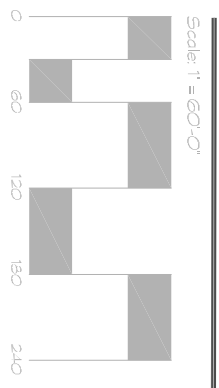
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Toole Recreation Planning

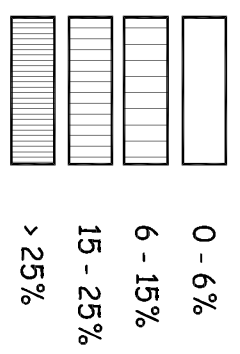


### Soils List



Symbol	Soil	Slopes
	CrB - Croton silt loam	3 to 8 percent slopes
	PmB2 - Penn silt loam	3 to 8 percent slopes
	PmC2 - Penn silt loam	8 to 15 percent slopes
	RdB2 - Readington silt loam	3 to 8 percent slopes
	Ro - Rowland silt loam	

### Slopes



### Park Areas

- A. Municipal building and public works area.
- B. Maintained lawn area - soccer practice area.
- C. Maintained lawn area - sloped transition to woodlands.
- D. Mature Woodlands
- E. Riparian Corridor

Erosion potential	Depth To Bedrock (ft.)	Seasonal High Water Table (ft.)
none	3-5	0-1/2
moderately eroded	2-4	5+
moderately eroded	2-4	5+
moderately eroded	2-5	1+
none	4-5	0-2



# Introduction

The master plan design alternatives were developed with consideration of the goals established by the Study Committee, the analysis of the site, the surrounding land uses including the future adjacent residential development, existing municipal complex, and input received from the key person interviews, public meetings, and the East Coventry Township Ellis Woods Park Public Opinion Survey.

The overriding concept for the alternative designs was the preservation of the sites natural features, respect for existing site limitations, and providing design facilities that responded to community needs. Emphasis was given to enhancing the existing site resources, and creating a park environment that requires limited alterations to the site's character. Each alternative provides a balanced community park that maximizes the active recreational areas within the site while preserving the natural areas. Both active facilities for organized sports and individual play and passive facilities for family, small group, and informal recreation are proposed. Active facilities are grouped within the open areas adjacent to the municipal complex.

The existing site configuration and the preservation of the existing woodlands were major factors that limited the developable area of the park. As a result, the layout, placement, and use relationships between various park facilities are somewhat similar. However, the number and types of proposed facilities vary between alternatives.

Three alternative designs and a pre-final design were developed. These designs are summarized below, followed by the plans that illustrate the development concepts:

## Conceptual Alternative No. 1

### Recreation Facilities and Areas:

- ❑ Two youth soccer fields at 100 x 160 feet.
- ❑ Open lawn area for community events.
- ❑ Tot lot, youth playground, and small pavilion.
- ❑ Two basketball courts.
- ❑ A small stage/sitting area for outdoor classroom, community activities, and small group gatherings.
- ❑ A series of hard and soft surface loop trails of varying lengths and degrees of difficulty for walking.
- ❑ Two small picnic pavilions for family use and organized group or sport activities.

### Support Facilities:

- ❑ Stormwater runoff is managed in underground seepage beds for each proposed facility.
- ❑ Parking area with approximately 60 spaces. Total of 84 spaces with existing 24 parking spaces.
- ❑ Park entrance sign along the existing entry drive.
- ❑ Buffer for adjacent residential properties.
- ❑ Pedestrian bridge.

## CONCEPTUAL ALTERNATIVE NO. 1



## Advantages:

- ❑ The site's natural resources are preserved, with limited disturbance for proposed amenities. Disturbance to the existing woodlands and hedgerows is limited.
- ❑ The design integrates and preserves the existing parking areas.
- ❑ Parking areas are conveniently located near activity areas and facilities.
- ❑ Pedestrian and vehicular traffic is separated, minimizing conflicts and enhancing safety.
- ❑ The central portion of the site is developed to accommodate a wide range of users and create an open area for self-directed or group activities. Facilities for both active and passive recreation are provided.
- ❑ Diverse opportunities are created for walking and enjoying the natural setting of the park.
- ❑ The trail system is developed with varying degrees of difficulty to challenge users of all abilities.
- ❑ Parking is within close proximity to the playground area.
- ❑ The small pavilion is centrally located between the youth playground and tot lot.
- ❑ Main activity areas are close to the proposed restrooms.

## Disadvantages:

- ❑ Adequate separation is not provided between the playground and tot lot and basketball courts.

## Conceptual Alternative No. 2

### Recreation Facilities and Areas:

- ❑ Open lawn area for community events.
- ❑ Tot lot, youth playground, and small pavilion.
- ❑ Multi-purpose courts/ overflow parking (30 spaces).
- ❑ Picnic grove.
- ❑ A series of hard and soft surface loop trails of varying lengths and degrees of difficulty for walking.
- ❑ Two small picnic pavilions for family use. One pavilion will be developed with an outdoor fireplace.
- ❑ Sledding Hill.
- ❑ Fitness trail.

### Support Facilities:

- ❑ Stormwater runoff is managed in underground seepage beds for each proposed facility.
- ❑ Parking area with approximately 30 spaces. Total of 84 spaces with existing 24 parking spaces and 30 overflow spaces.
- ❑ Park entrance sign along the existing entry drive.
- ❑ Buffer for adjacent residential properties.
- ❑ Pedestrian bridge.

## CONCEPTUAL ALTERNATIVE NO. 2

## Advantages:

- ❑ The site's natural resources are preserved, with limited disturbance for proposed amenities. Disturbance to the existing woodlands and hedgerows is limited.
- ❑ The design integrates and preserves the existing parking areas.
- ❑ Parking areas are conveniently located near activity areas and facilities.
- ❑ Pedestrian and vehicular traffic is separated, minimizing conflicts and enhancing safety.
- ❑ The central portion of the site is developed to accommodate a wide range of users and create an open area for self-directed or group activities. Facilities for both active and passive recreation are provided.
- ❑ Diverse opportunities are created for walking and enjoying the natural setting of the park.
- ❑ The trail system is developed with varying degrees of difficulty to challenge users of all abilities.
- ❑ Parking is within close proximity to the playground area.
- ❑ Main activity areas are close to the proposed restrooms.
- ❑ The trails are developed with varying degrees of difficulties in a loop design that accommodates a variety of users and abilities.
- ❑ The picnic grove provides adequate visual and physical separation between the basketball courts and youth playground and tot lot.
- ❑ Court areas and parking have been maximized designating the courts as overflow parking.

## Disadvantages:

- ❑ Youth soccer fields have been eliminated from the park.
- ❑ The small pavilion is not centrally located between the youth playground and tot lot.
- ❑ Screening for the Township maintenance yard is not provided.

## Conceptual Alternative No. 3

### Recreation Facilities and Areas:

- ❑ Open lawn area for community events.
- ❑ Tot lot, youth playground, and small pavilion.
- ❑ Multi-purpose court.
- ❑ Skate park.
- ❑ A series of hard and soft surface loop trails of varying lengths and degrees of difficulty for walking
- ❑ Picnic gazebo.
- ❑ Natural amphitheater and small stage.

## CONCEPTUAL ALTERNATIVE NO. 3

## Support Facilities:

- ❑ Storm water runoff is managed by relocating and modifying the existing detention basin located along the existing entry drive.
- ❑ Reconfigured parking area and entry drive – 94 spaces.
- ❑ Park entrance sign along the existing entry drive.
- ❑ Buffer for adjacent residential properties.
- ❑ Pedestrian bridge.

## Advantages:

- ❑ The site's natural resources are preserved, with limited disturbance for proposed amenities. Disturbance to the existing woodlands and hedgerows is limited.
- ❑ Parking areas are conveniently located near activity areas and facilities.
- ❑ Pedestrian and vehicular traffic is separated, minimizing conflicts and enhancing safety.
- ❑ The central portion of the site is developed to accommodate a wide range of users and create an open area for self-directed or group activities. Facilities for both active and passive recreation are provided.
- ❑ Diverse opportunities are created for walking and enjoying the natural setting of the park.
- ❑ The trails are developed with varying degrees of difficulties in a loop design that accommodates a variety of users and abilities.

## Disadvantages:

- ❑ Youth playground and tot lot are not within close proximity to the parking area.
- ❑ The existing parking, entry drive, and stormwater management facilities will be reconstructed.

## Study Committee Review of Alternatives

The three conceptual alternatives were presented to the Study Committee on February 24, 2003. The Study Committee provided the following input, which was used as a guide in developing the Pre-Final Design for the Ellis Woods Park Master Plan.

- ❑ The need for fencing along the western boundary adjacent to the Thompson Property was discussed. At this time a fence is not proposed. The separation created by the landscape buffer and the required stormwater management facilities that will be required will provide adequate separation.
- ❑ The distance between the driveways in Alternative 3 may not meet the requirements of the Township ordinances. It was noted that the Township would have to meet all Township development regulations.
- ❑ Provide emergency access across the pedestrian bridge into the woodlands.
- ❑ An indoor recreation facility within a few miles of the park has recently opened. Facilities include inline rinks, volleyball and basketball courts.
- ❑ The use of the park for emergency management was discussed relating to the 3 alternative designs.
- ❑ Delineate an area to be utilized for the bike rodeo within the paved court areas.

- ❑ **Conclusions regarding the wooded areas include:** Eliminate the fitness stations, provide benches along the trails within the wooded area, a pedestrian connection to Hershey Drive, and provide exhibits for tree identification. The benches and tree identification exhibits could be scout projects.
- ❑ **Conclusions regarding the sledding hill:** Grade the bottom of the hill to prevent sleds from running into the woodlands. Incorporate an informal amphitheater within this area. Provide a pavilion to be used for both picnicking and as a stage for the amphitheater.
- ❑ **Conclusions regarding the amphitheater:** Locate the multi-use pavilion to the bottom of the hill to function as a stage. Include a fireplace in this pavilion for winter use. Provide a pedestrian link to the trail system.
- ❑ **Conclusions regarding the municipal complex:** The maintenance yard should be fenced and designed as shown in Alternative 1 and 2. Restrooms will be constructed as part of the proposed building improvement project currently underway and should be reflected in the design as such.
- ❑ **Conclusions regarding development of the pre-final plan:** Develop the community lawn as shown on Alternative 1. Provide a large multi-purpose pavilion to anchor the community lawn. Develop the tot lot/playground in close proximity to the future restrooms as shown in Alternative 2. Develop the parking areas as shown in Alternative 2, Develop 3 multi-purpose courts in lieu of the basketball courts as shown in Alternative 2. Provide for a future teen area adjacent to the multi-purpose courts. Provide a bituminous loop trail around the community lawn transitioning to stone dust into the woods. Provide earthen trails in the woodlands.

## Pre-Final Master Plan

The Pre-Final Master Plan was developed based on the Study Committee discussion of the three conceptual alternatives. As outlined above, the Pre-Final Master Plan combines features and facilities from the three Alternative designs.

Features and facilities of both the Pre-Final and Final Master Plan are discussed in Chapter 5 - Ellis Woods park Master Plan.

## Public Meeting to review the Pre-Final Master Plan

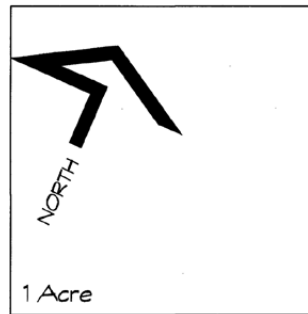
On March 31, 2003 the Pre-Final Master Plan was presented to interested citizens at the Township Municipal Building. Approximately 10 citizens including members of the Study Committee and the East Coventry Township staff observed the presentation of the Pre-Final Master Plan. Residents generally supported the park development and had very little concern regarding the facilities, locations, and/or use relationships. The overall park design was well received. Comments, concerns, and questions regarding the plans development included:

- ❑ Who will be responsible for maintenance of the park? Are there any security concerns for the wooded areas of the park? As part of the planning process, the design team will be working with the Township to address maintenance and security issues for the park.
- ❑ What is the expected use for the proposed facilities? The proposed facilities are developed for general recreation and community use. The facilities are not intended for league play.
- ❑ Will dirt bikes and snowmobiles be allowed to utilize the trails? Township's policies will regulate dirt bike and snowmobile use. Currently these uses are not permitted in the Township.
- ❑ It was noted that the park contains a significant stand of mature oaks, which should be preserved.

- ❑ Is lighting proposed for any facilities? The court areas could be lighted in the future. Currently lighting is not proposed for any of the facilities. Security lighting should be considered for the pavilions, parking, and playground areas.
- ❑ How will litter be addressed? Trash receptacles will be provided for the main activity hubs and picnic areas. Carry in/carryout policies will be considered for the wooded area of the park.
- ❑ Adjacent residents voiced their concern for the development of a trail along the perimeter of the Creekview Development. This trail would provide pedestrian access to the park from Hershey Drive. Residents are concerned that this would become a primary access point to the park and encourage parking along Hershey Drive.
- ❑ It was noted that most of the Creekview development is located north of Pigeon Creek. Although the Pigeon Creek Greenway provides for pedestrian access to the park, the park is located on the south side of the creek. Pedestrian access across the creek to the main future developed areas should be considered.

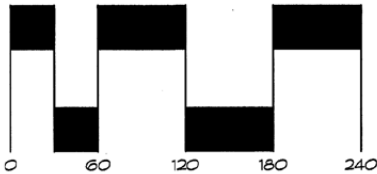






1 Acre

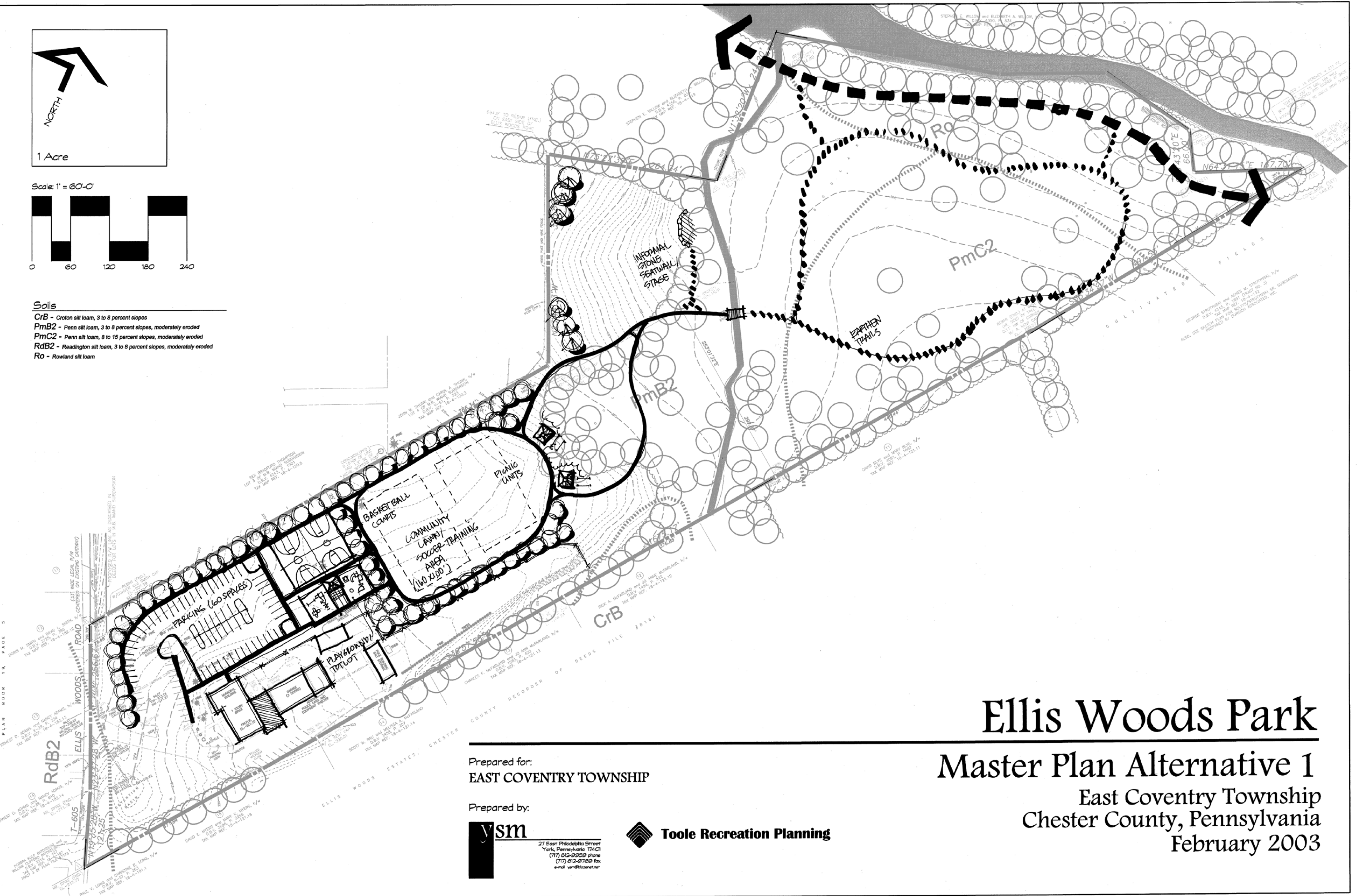
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#### Soils

CrB - Croton silt loam, 3 to 8 percent slopes  
 PmB2 - Penn silt loam, 3 to 8 percent slopes, moderately eroded  
 PmC2 - Penn silt loam, 8 to 15 percent slopes, moderately eroded  
 RdB2 - Readington silt loam, 3 to 8 percent slopes, moderately eroded  
 Ro - Rowland silt loam

PLAN OF LOTS PREPARED FOR HOWARD E. AND C. PALMER WILSON  
 PLAN BOOK 19, PAGE 5



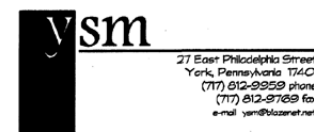
# Ellis Woods Park

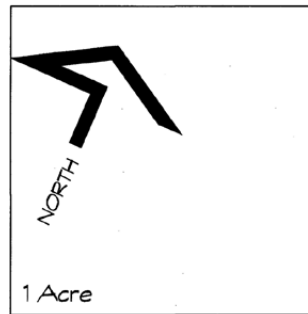
## Master Plan Alternative 1

East Coventry Township  
 Chester County, Pennsylvania  
 February 2003

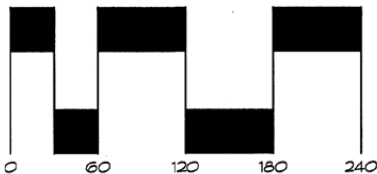
Prepared for:  
 EAST COVENTRY TOWNSHIP

Prepared by:



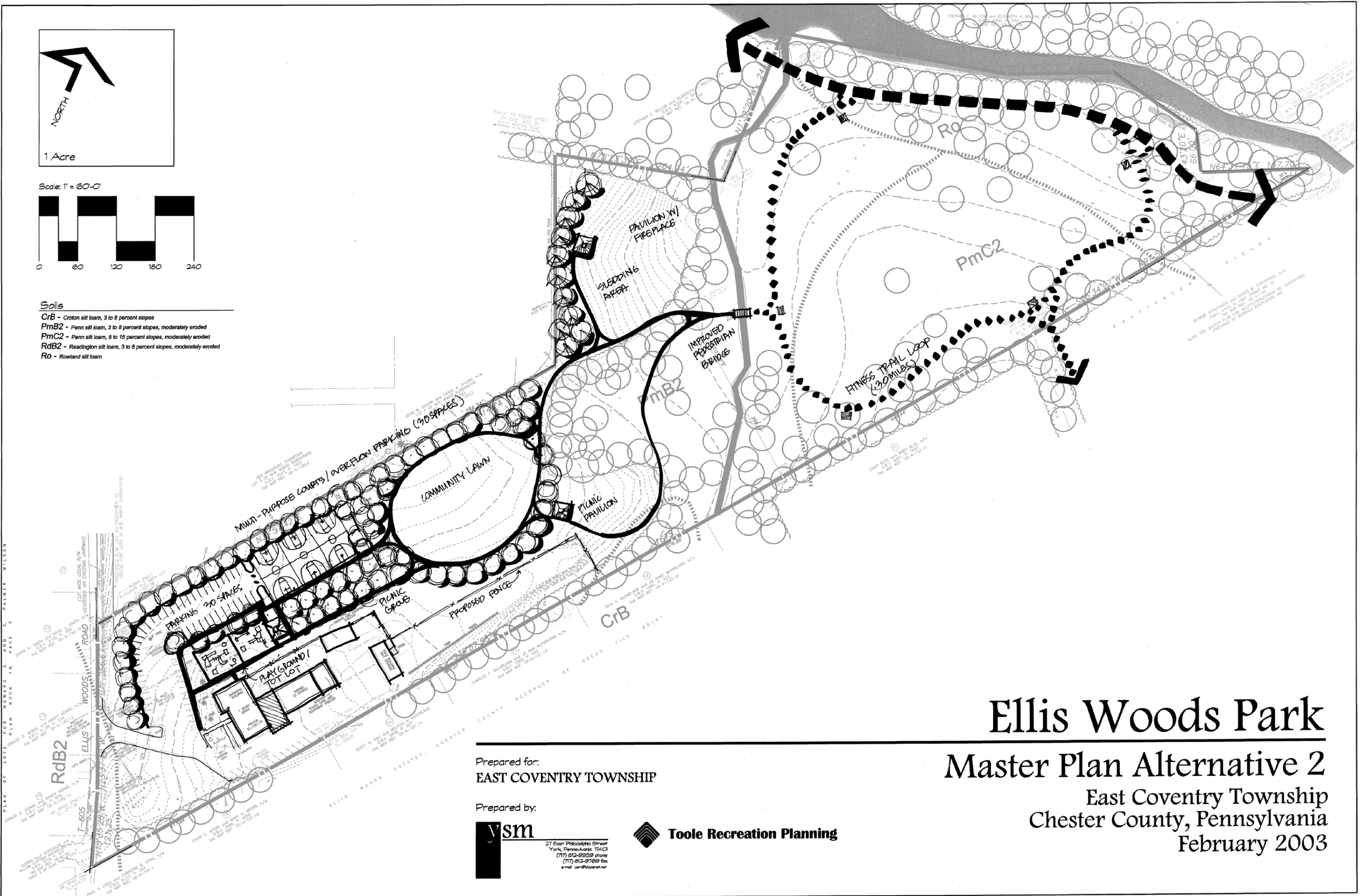


Scale: 1" = 60'-0"



#### Soils

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 PmB2 - Penn silt loam, 3 to 8 percent slopes, moderately eroded  
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 RdB2 - Readington silt loam, 3 to 8 percent slopes, moderately eroded  
 Ro - Rowland silt loam



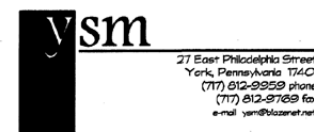
# Ellis Woods Park

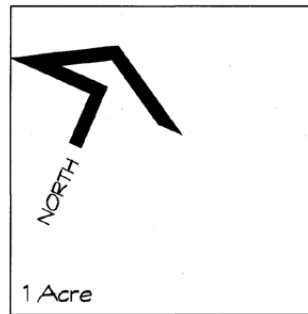
## Master Plan Alternative 2

East Coventry Township  
 Chester County, Pennsylvania  
 February 2003

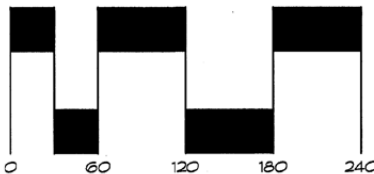
Prepared for:  
 EAST COVENTRY TOWNSHIP

Prepared by:



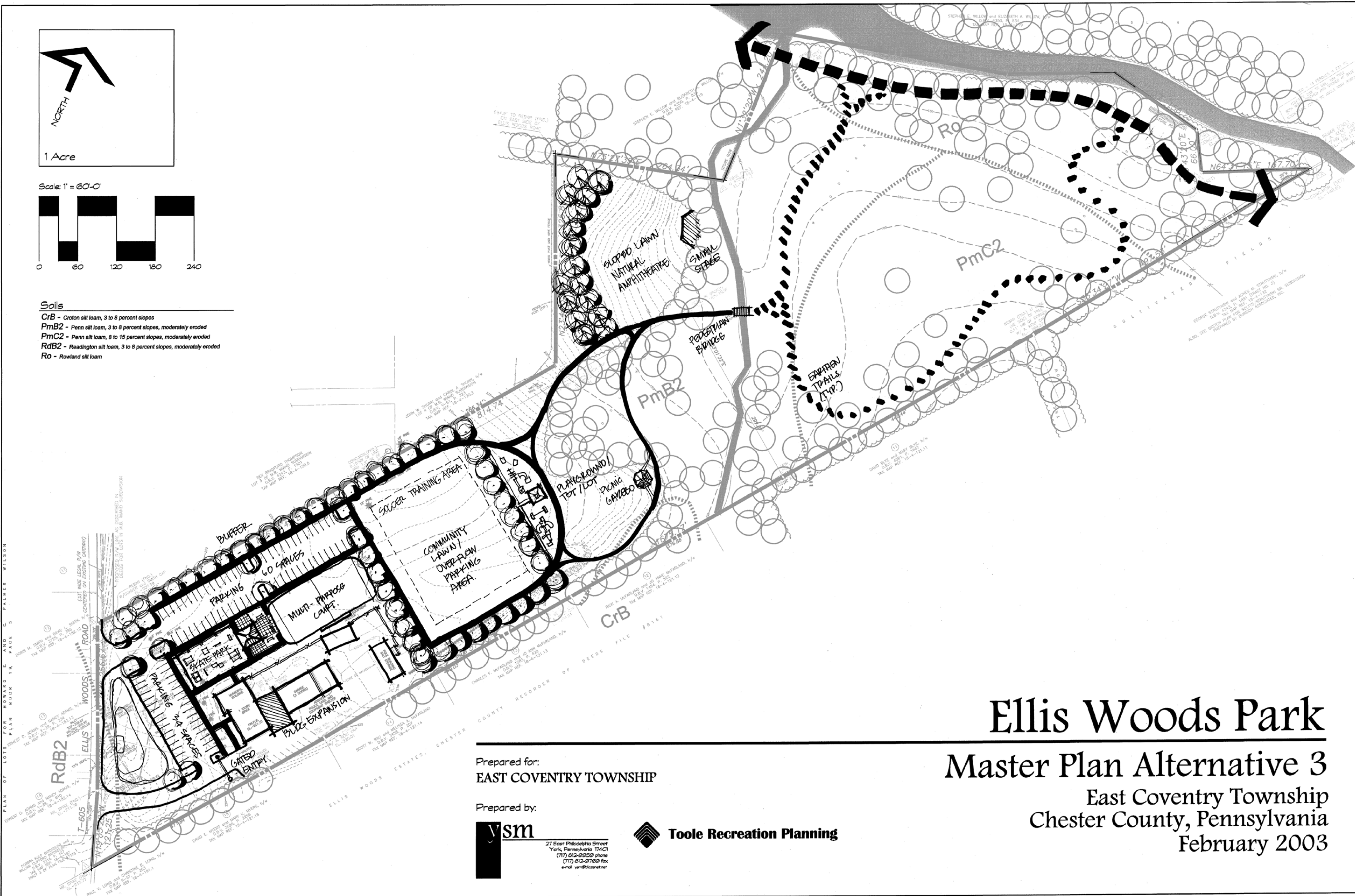


Scale: 1" = 60'-0"



#### Soils

- CrB - Croton silt loam, 3 to 8 percent slopes
- PmB2 - Penn silt loam, 3 to 8 percent slopes, moderately eroded
- PmC2 - Penn silt loam, 8 to 15 percent slopes, moderately eroded
- RdB2 - Readington silt loam, 3 to 8 percent slopes, moderately eroded
- Ro - Rowland silt loam



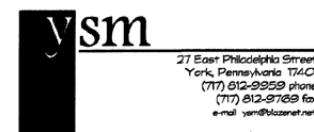
# Ellis Woods Park

## Master Plan Alternative 3

East Coventry Township  
Chester County, Pennsylvania  
February 2003

Prepared for:  
EAST COVENTRY TOWNSHIP

Prepared by:





The planning process revealed the facilities, activity areas, and site configuration desired by residents of the East Coventry Township for Ellis Woods Park. The Ellis Woods Park Master Plan was developed in its final form after careful consideration of the site analysis, input from key person interviews and the study committee, review of the three conceptual alternatives, the pre-final master plan, conclusions from the citizen survey, and consideration of citizens' comments from the public meeting.

## Park Design Concept

The park design creates recreational areas that meet broad community-wide recreation needs and interests. The Master Plan emphasizes facilities and areas for both active and informal, resource-based recreation activities.

The concept focused on creating a hierarchy of spaces that respect the existing site conditions. As a result, three distinct areas were developed within the park: natural areas, a community space, and an active area. The western portion of the park (adjacent the Township Municipal Building)) is developed with active facilities while the easternmost portion (existing woodlands) has been maintained as a natural area with the introduction of limited facilities to accommodate public use. The community lawn area is centrally located and serves as both a transitional space and link between the active and natural areas.

Both natural areas have been enhanced to provide environmental educational opportunities and improve existing wildlife habitat. The centrally located community space provides opportunities for special events and community celebrations as well as self-directed informal recreation and active organized sports. The active area provides facilities for youth, teens, organized sport leagues, families, and seniors.

The design accomplishes the following:

- ❑ Protects the site's wooded area and stream through designated controlled access areas.
- ❑ Minimizes disturbance to the woodlands. Existing parking areas, entrances, and open areas are maintained in the master plan.
- ❑ Provides a hierarchy of trails for exploring the site and its natural setting and connections to the Pigeon Creek Greenway.
- ❑ Provides facilities for lifetime leisure activities, such as walking, hiking, picnicking, horseshoes, and sledding.
- ❑ Organizes activity areas near the existing parking areas and Municipal Building.

## Proposed Recreation Facilities

The proposed recreation and environmental education facilities are developed to accommodate a variety of users with varying interests, skill levels, and ages. Areas for informal, non-programmed recreation and the exploration of natural resources are provided. Facilities are described below.

**Picnic Areas** – Two picnic areas are proposed for the park. The primary picnic area is situated at the end of the community lawn and is developed with a pavilion and horseshoe pits. This picnic area serves to anchor the open lawn area. Picnic tables and grills are provided and the area is easily accessible by trails.

A secondary picnic area is located along the edge of the woodlands. This small area contains a warming hut/pavilion with a fireplace to accommodate winter use. The warming hut/pavilion is sized to accommodate approximately four picnic tables and is located adjacent to an area designated for sledding. Each picnic area should be developed with appropriate amenities such as picnic tables and grills and must be accessible via an accessible route.

**Horseshoe Pits** – Two pair of horseshoe pits are located near the primary picnic area. The pits are located with the preferred north-south orientation and the stakes should be located 40-feet apart. The pits should be developed to the standards of the National Horseshoe Pitchers Association. An adequate safety zone should be provided around the horseshoe pit area to separate it from other activities.

## FINAL MASTER PLAN



**Playgrounds** – One playground area has been developed adjacent to the Municipal Building. The playground should be age segregated with a tot lot for ages 2-5 years old and a youth playground for ages 6-12 years old. The playground should be developed with safety surfacing for safe play. Reference should be made to the following:

- ❑ American Society for Testing and Materials F1487-95
- ❑ Consumer Product Safety Commission Guidelines for Public Playground Safety

The playground is accessible to physically challenged children via accessible pathways and play equipment should offer play options for physically challenged children. The playground must comply with the Americans with Disabilities Act (ADA). Swings and individual play elements or a small component structure are recommended for Ellis Woods Park rather than a large modular super structure based on citizen input.

What is a Good Playground?
<p><i>Play is the work of children.</i> Through play, children learn skills to develop into happy and well-adjusted human beings. Playgrounds provide a valuable resource for this process. Playgrounds typically focus on the narrow gross motor skills: running, climbing, and swinging. Important skills such as socialization, language, creativity, and conceptualization are less likely to be developed on play equipment typically available such as swings, climbers, seesaws, and merry-go-rounds.</p>
<p><b>Elements of a Good Playground</b> - Play areas designed according to the development needs of specific age groups: (2-5 year olds, 6-12 year olds). Playground equipment must conform to the Consumer Product Safety Commission guidelines. This includes safe equipment, design for safety through proper layout, and safe surfaces. Playgrounds should be designed and located within the spirit and standards of the Americans with Disabilities Act.</p> <p><b>Superstructure</b> - A play superstructure provides a wide range of experiences not possible in traditional equipment with a singular purpose. Every time a child steps onto a superstructure, a variety of choices are presented. Components of superstructures include decks, bridges, ladders, and climbers. Superstructures are sized to accommodate numerous children at once.</p> <p><b>Tire Swing</b> - In contrast to the traditional belt swing, tire swings can accommodate up to three children at once. This encourages children to develop a sense of cooperation and teamwork.</p> <p><b>Sand Area</b> - Children love to play in sandboxes. Sand play fosters cooperative and creative play.</p> <p><b>Dramatic Play Structures</b> - Structures that resemble items such as houses, town buildings, trains, cars, etc., provide the vehicle for children to develop linguistic and conceptual skills. These structures encourage imagination and social skills. They become props for adventures and activities.</p> <p><b>Paths and Walkways</b> - Paths for tricycles, in-line skates, or wheelchairs provide a way for children to experience independence. Paths with curves provide physical and cognitive challenges for balancing, steering, and turning, and a sense of the body in motion.</p> <p><b>Trees and Gardens</b> - Trees and shade are essential components of a playground. Relief from the hot summer sun is important. When supervision is possible, gardens provide learning landscapes for appreciation of the environment and nature.</p> <p><b>Sitting Areas</b> - Benches and shade are necessary for people using a playground. Adults supervising children need a relaxing place to sit. Sitting areas provide a gathering place for socialization and story telling. Seating can be imaginative with cutouts in hills, walls designed for seating, etc.</p> <p><b>Water Play Features</b> - Water play is a favorite activity of pre-schoolers. If the playground has supervision, a water play area would be an asset. Water spray fountains near sand play areas add to the imaginative play opportunities.</p>

**Teen Area** – An area for teen activities has been designated on the plans. Adjacent to the Municipal Building, this location provides indirect supervision and is convenient to the parking and restroom facilities. Teen facilities should be defined and developed with input and from area teens. Suggested facilities to be explored could include teen walls and sitting plazas, modular skate park, modular play equipment specifically designed for teens, or a small multi-purpose court.

**Restrooms** – Plans are currently underway to expand the existing Municipal Building. Provisions have been included in the building expansion to provide public restrooms for the park. The restrooms entrance will be located along the northern face of the building. The entry will be developed to allow access to the restrooms only and have a timing system to control access.

**Sledding Area/Amphitheater** – The existing open lawn area in the northernmost corner of the site has been designated as a sledding area for winter use and a lawn amphitheater for small group functions, plays, and concerts. The area provides slopes in the 8 to 10-percent range and is located on a north-northeast facing slope. All existing obstacles including trees and small shrubbery should be removed from the sledding use area and surrounding safety zone. The area should be field checked for rock outcrops or other obstacles, which should be removed. A gentle run out space should be graded at the bottom of the slope. A picnic pavilion/warming hut with a fireplace is located at the toe of the slope. This pavilion will include a platform that will also function as a stage.

**Trails** – Multiple loop trails are developed to provide visitors safe and convenient access to site features. The trails are designed to closely align with existing trails and clearings developed by the Boy Scouts. Utilizing these established areas would limit disturbance to vegetation. The trails are designed with a series of loops, to provide varying trail lengths and degree of difficulty. The trail network will link the park with the Pigeon Creek Greenway and provide pedestrian access from the future developments proposed within the immediate area. To protect the natural resources, trails are designated for non-motorized use only, with the exception of emergency and maintenance vehicles.

The proposed trail surfaces vary depending on the location. A soft and hard surface trail system has been developed within the park to link the various park facilities and provide walking and jogging opportunities. An eight-foot wide paved trail encircles the Community Lawn and provides accessible routes from the parking area to the playground and teen hub. A six-foot wide stone dust trail extends from the hard trail to the picnic area and woodlands. An earthen trail has been delineated through the woodlands. This trail spurs off of the stone dust trails and offers a higher degree of difficulty for hiking and exploring and should be designated and developed in the field as such. Opportunities exist to explore the hillside vegetation, the young forest, the stream, changes in elevation, and solar orientation. A vegetative buffer should be provided between the trail and the stream banks and erosion and drainage control measures should be implemented. All earthen trails should be located in the field to minimize disruption to vegetation and removal of mature trees.

Trail loop sections will be developed with mile markers and benches periodically placed for resting and enjoying the park setting. Paved and stone dust trail systems are developed to comply with ADA requirements and will be accessible to security, maintenance, and emergency vehicles. Removable bollards should be placed at all walk entries to limit access to authorized vehicles.

**Woodland Education Exhibit Area** – An area has been designated within the woodlands for the creation of a woodland educational exhibit. The exhibit area should be developed in conjunction with the proposed trail system in order to minimize disturbance to the woodlands and provide access. The exhibit area will also function as a rest stop and include benches and sitting areas. Interpretative signs with information about the woodlands, surrounding forests, vegetation, and wildlife habitats should be designed and developed and incorporated into the area.

**Pavilions** – Three pavilions of various sizes are proposed for the park. Two are provided in association with picnic areas. A large multi use-pavilion (24x44) is located at the foot of the sledding hill. This pavilion will serve not only as a picnic pavilion, but also serve as a warming hut and include a fireplace for winter use. Additionally this multi-use pavilion will function as a stage for the open lawn amphitheater. The second large pavilion anchors the open lawn area and serves as the main picnic shelter. This pavilion will also serve as a shelter for teams using the community lawn and soccer training area. A medium pavilion (24x24) is located between the teen hub and the youth playground and tot lot and will provide shade for the area.

**Multi-Purpose Courts** – A multi-purpose court is proposed to include basketball courts, inline skating, and roller hockey. The court area should be designed and developed to allow multiple uses at the same time. Striping of the courts should also incorporate designs that will be suitable for the bike rodeo program offered



by the East Coventry Police Department. A ten-foot unobstructed area should be provided on all sides of the court. The court should be developed with 1.25-1.5 percent slope for proper surface drainage.

The Multi-Purpose Court is located adjacent to the proposed parking area and will serve as an overflow parking area for large events and community functions. The court should be developed in conjunction with the parking expansion and include removable bollards to control vehicular access and designated emergency vehicular access to the community lawn and wooded portions of the site.

**Multi Purpose Field/Community Lawn** – An area approximately 160 x 200-feet has been designated as the community lawn. This area will accommodate a small youth soccer field, and can also serve as a practice area for football, field hockey, and lacrosse. The field area should be developed with 1.5-2 percent slopes. Soil tests should be performed to determine the requirements for optimum turf grass development and field drainage.

## Support Facilities

**Access and Parking** – The existing entrance drive and parking area is located along the parks perimeter and have been improved and expanded in order to minimize impacts and intrusions to the parks interior landscape. A gate is proposed to control and limit public access to the Police and Maintenance parking areas.

Approximately 56 spaces including 3 HC parking spaces have been provided. Parking is developed in accordance with applicable ordinances and includes handicap parking spaces. The number of parking spaces was developed with input from the various user groups, Township representatives, and with consideration of the minimum parking requirements as outlined by the National Recreation and Park Association.

**Landscaping** – Minimal landscaping is proposed for the site due to the natural setting. Plantings should be provided to expand the food and cover for wildlife and to provide shade at the activity and parking areas. The use of plant material, native to Chester County, is suggested. Native plant material is adaptive to the geographic location and will require less maintenance, withstand the extremes in climate change, be less susceptible to disease and pests, and propagate naturally.

A well-designed landscaping can lower maintenance requirements. Mow lines should be established which reduce mowing, especially, outside of activity areas. Lawns should not be established adjacent to water bodies to reduce the effects of excessive foraging by Canadian Geese.

**Signage System** – Entrance signs identifying the park from Ellis Woods Road are proposed. The actual location of the entrance signs and related plantings should be field verified during the construction drawing phase to provide adequate visibility. Each trail will be developed with signage to highlight significant natural features of the site and to create awareness and educate the public on the sites natural features. These educational opportunities can develop respect for park amenities, and create a sense of stewardship in the community. A comprehensive system of signs recommended for the park would include the following:

A Signage System for Ellis Woods Park		
Sign Type	Sign Purpose	Sign Location
Park Entrance Signs	Identify the park's entrances and owner.	Entrances to parking areas.
Information Kiosks	Provide information about the park such as park policies, park and trail maps, special events calendar, etc.	At parking areas.
Trail signs – trail blazes and directional signs	Identify official trails of the park. Alert trail users of road crossings.	At all trail intersections to guide users and identify cross trails. At road crossings to enhance safety.
Mile Markers	Identify location on a trail (mile indication visible from both sides of the marker).	At one-half mile intervals along the trails.
Interpretative Signs	Provide environmental education and general interest information.	At points of interest in the park and along the trails.



Guidelines for the design of signs for Ellis Woods Park are noted below.

Sign Guidelines	
Vandal Resistant	Utilize materials such as phenolic resin panels (no frame required) or fiberglass embedded panels (frame required) which resist abrasions, graffiti, solvents, etc.
Weather Resistant	Utilize materials that will not fade or otherwise degrade from sunlight, moisture, or the freeze/thaw cycle.
Meet PennDOT Regulations	Along PennDOT roadways use standard signs.
Promote Consistent Image	Develop a “family” of graphics (logo, font, colors, etc.) that will be used on signs throughout the park to unify the site.
Graphics	Utilize maps, graphic illustrations and photographs, and text to communicate the intended message.
Maps	Include maps at key locations throughout the park (main activity areas, trailheads, etc.) to orient the visitor.

**Site Amenities** – The developed area of the site should be convenient for users and create a welcoming environment. Benches should be provided at gathering places and periodically along the pedestrian and accessible trails. A drinking fountain should be provided on the exterior of the building adjacent to the restroom entrance. Bike racks should be provided at the courts and teen areas.

**Utilities** – The existing well and septic system will be utilized to provide additional service to the park. Electric service will be required to provide security lighting for the parking area and pavilions.

**Stormwater Management** – Stormwater management facilities will be required to accommodate the increased stormwater runoff from the park development. Stormwater management, collection, and conveyance facilities shall be designed to comply with the Chester County and East Coventry Township Stormwater Management Ordinances. A new facility is proposed west of the existing parking area and improvements to the existing basin are required to control runoff from the site. Stormwater management facilities should incorporate Best Management Practice principles for design.

**Best Management Practices** – The site’s natural resources are the basis of the recreation opportunities proposed for Ellis Woods Park and should be protected. Development of the park will involve some earthwork and construction activities. Best management practices are encouraged throughout the development phase to protect the site’s resources.

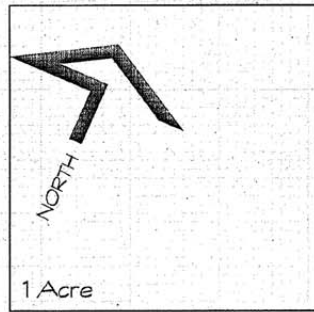
Best Management Practices		
BMP	Purpose	Application
Constructed Treatment Wetlands	Remove a wide variety of pollutants such as suspended solids, nutrients, and organic pollutants.	Shallow water-filled basins planted with emergent plant vegetation. Place at stream/drainage-way outfall to water bodies.
Critical Area Planting	Stabilize slope, improve wildlife habitat, slow storm water run-off	Areas of erodable soils and/or steep slope and at the edge of the stream and perimeter of pond.
Filter Strip	To trap sediment and convey run-off from paved surfaces to storm water channels and reduce run-off velocity	Adjacent to impervious surfaces and on gentle slopes with sheet flow. Adjacent to springs, streams and pond to filter sediment.
Grass Swales	Run-off conveyance, pollution and sediment filtering device and increased ground water infiltration.	Where natural drainage ways can be incorporated into the storm water design in lieu of piped conveyance.
Level Spreader	To reduce the erosion effects of concentrated run-off and promote infiltration	Adjacent to paved surfaces and at pipe and channel discharge points.
Stream bank Stabilization	Protect critical sections of a stream bank where standard vegetative practices are not feasible or offer insufficient protection.	Banks of springs, streams or swales that need to be stabilized due to unstable soil and steep banks.

Minimize Site Clearing	Minimize disruption to the site's natural systems and preserve the natural stabilizing and filtering vegetation of the site.	Where development is proposed.
Reduce Impervious Infrastructure	Reduce storm water run-off and promote infiltration.	Where development is proposed. Reduce driveway width, parking area dimensions, and paved areas to minimum dimensions. Utilize coarse aggregate porous surface in lieu of impervious pavement. Utilize stabilized turf for overflow parking.
Best Management Plan for Construction Activities	To prevent soil erosion, sediment, and other pollutants from entering springs, streams, ponds, etc.	Where development is proposed. Utilize during construction and post- construction period.

*Green Design* – Ellis Woods Park is a sensitive natural resource that accommodates public recreation activities. Implementation of green design techniques for future construction/improvements is encouraged to minimize impact on the natural resources.

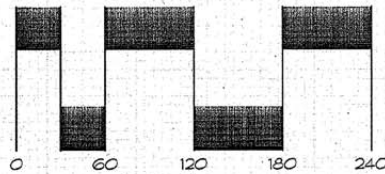
Green Design Considerations		
Consideration	Intent	Application
Erosion and sedimentation control	Reduce negative impact on air and water quality	Provide erosion control measures and best management practices (BMP's) during new construction activities.
Reduce site disturbance	Limit development to appropriate sites to reduce the impact on the landscape and habitat.	Construct improvements within existing clearings or developed areas.
Develop sustainable trails	Limit erosion attributed to inappropriate trail placement.	Develop trails that follow the contour of the land. Use switchbacks to navigate steep terrain, where necessary. Eliminate highly eroded trails.
Stormwater management	Limit disruption and pollution of natural water courses, reduce increased runoff and promote infiltration.	Minimize crossings at water courses. Where crossings are necessary, provide measures for efficient passage of water. Utilize porous pavement to promote infiltration.
Reduce heat islands	Minimize impact on microclimate and wildlife habitat.	Provide plantings in the large, expansive parking areas to break up the hard surface and promote infiltration
Reduce light pollution	Improve night sky visibility and reduce impact on nocturnal environments.	Limit lighting within the park. Where night lighting is necessary for safety and security, provide shields and only the necessary lumens.
Innovative waste water treatment	Reduce the generation of wastewater and potable water demand	Provide self mulching or other environmentally friendly treatment alternatives
Water use reduction	Maximize water efficiency to reduce burden on supply.	Use high efficiency fixtures and composting toilets to reduce demand.
Use recycled building materials	Limit the use of consumptive building materials	Utilize recycled plastic and building materials in new construction
Use local materials and suppliers	Support the local economy and reduce the environmental impact resulting from transportation	Purchase products locally produced.
Maximize solar orientation	Reduce electric needs through proper building orientation.	Orient restrooms to take advantage of natural light and heat.





1 Acre

Scale: 1" = 60'-0"



This project was financed in part by a grant from the Keystone Recreation, Park and Conservation Fund under the administration of the Department of Conservation and Natural Resources, Bureau of Recreation and Conservation.



- A** Proposed Municipal Building Expansion
- B** Proposed Public Restroom
- C** Playground / Tot lot
- D** Expanded Parking Area - 56 Total Spaces
- E** 24' x 24' Pavilion
- F** Teen Area
- G** Multi-Purpose Court
  - Basketball and Inline Skating Area
  - Bike Rodeo Area
  - Overflow Parking - 30 Spaces
- H** Community Lawn / Soccer Training Area (200' x 160')
- I** 24' x 44' Pavilion
- J** Horseshoe Courts
- K** Open Lawn / Amphitheater / Sledding Hill
- L** 24' x 44' Multi-Purpose Pavilion with Fireplace
  - Stage for Amphitheater
  - Group Gathering / Picnic
  - Winter Use

- M** Pedestrian Bridge
- N** Rest Stops (Typ.)
- O** Woodland Education Exhibit Area
- P** Pedestrian Connection to Hershey Drive
- Q** Pigeon Creek Greenway
- R** Proposed Gate for Police / Maintenance Area
- S** Fenced Maintenance Area
- T** Paved Loop Trail (0.20 Mi.)
- U** Stone Dust Trail
- V** Earthen Trail (0.35 Mi.)

# Ellis Woods Park

## Final Master Plan

East Coventry Township  
Chester County, Pennsylvania  
September 2003

Prepared for:  
EAST COVENTRY TOWNSHIP

Prepared by:



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York, Pennsylvania 17401  
(717) 612-3959 phone  
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Toole Recreation Planning





## Development Modules

Ellis Woods Park has been separated into four development modules. The proposed modules are based on community need, funding opportunities, logical sequences of construction, and considerations for how the park will function. These modules should be viewed as recommendations for development phasing. As funding is available or needs change in the community, the sequence of development may change.

- ❑ **Module A** provides for the enjoyment of the natural areas of the park and includes interpretive stations and exhibits, rest areas and a pedestrian bridge to provide access to the woodlands, earthen trails and greenway system.
- ❑ **Module B** establishes the primary parking area for the park and includes the main activity area of the park. Proposed facilities include an age segregated youth playground/tot lot, and a small pavilion. Grading for the development of the proposed facilities in Module C will be completed as part of the grading operations of Module B.
- ❑ **Module C** develops the community area which includes multi-purpose fields, community lawn and pavilion, multi-purpose courts, modular skate park, horseshoe courts, and a paved loop trail
- ❑ **Module D** connects the two main areas of the park and serves as a transition area between the open active area and the wooded natural areas of the park. Facilities include a pavilion, lawn amphitheater, and stone dust trail.

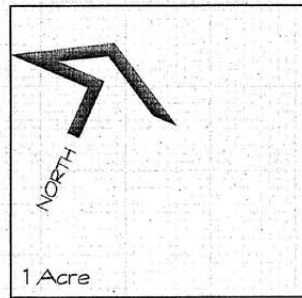
Probable Construction Cost Opinions	
Module A	\$ 21,813
Module B	\$ 474,421
Module C	\$ 355,737
Module D	\$ 97,888
Total	\$949,859

## Cost Opinions Assumptions and Exclusions

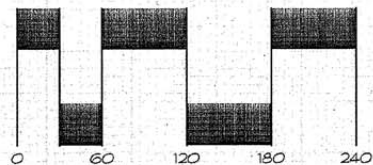
The anticipated cost for each module of development is outlined on the following pages. The estimates of probable construction costs have been completed using DCNR format for use in grant funding applications. A module designation for each facility has been included on the Final Master Plan. Costs are based on Pennsylvania prevailing wages for year 2003 construction prices. A fifteen percent contingency is included in each cost. An inflation factor has not been included in the phased costs.

The construction cost opinions do not include security lighting, utility connection fees, utility service upgrades and/or distribution, utility location and/or relocation, road improvements, soil amendments, removal of unsuitable materials, site and facility lighting, construction management and/or construction inspection fees.





Scale: 1" = 60'-0"



- A** Proposed Municipal Building Expansion
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# Ellis Woods Park

## Phasing Plan

East Coventry Township  
Chester County, Pennsylvania  
May 2003

Prepared for:  
EAST COVENTRY TOWNSHIP

Prepared by:



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**Toole Recreation Planning**





## Introduction

Ellis Woods Park will complement the existing Tow Path Park. The community wishes to maintain this park in a natural state as possible while providing opportunities for visitors of all ages and abilities to use the park for nature, exercise and small-scale special events. Township officials charged park planners with determining the best use of the site for the community. The planning team conducted an extensive public participation process including participation by the Steering Committee, public meetings, key person interviews and a community-wide public participation survey. The goal of the public participation process was to determine the needs of the public at-large as well as the needs of special interest groups such as youth sports. Satisfying the needs of the citizens and the groups who provide special community recreation services was important to the Township. Creating a park plan that balances both sets of needs was a driving force in the planning process. The public participation process found that the community overall wanted to maintain the natural aspects of the site while providing opportunities for close-to-home recreation. About three out of five citizens polled let it be known that they preferred a community park to purely a site designed primarily for any single purpose including sports, nature or just as open space. Achieving a balance between resource protection and community use is an essential focus of this management and operations plan. Although the Township has been maintaining Tow Path Park for many years, Ellis Woods Park represents a significant addition to township operations.

## Security: A Function of Park Maintenance and Management

Although the Township specified reviewing security alone for the park in its original conception of the park master planning process, we recommended an expanded view of this concept in order to achieve the ultimate goals desired by the Township. Effective park security protects both township property and park visitors. This fosters the important public perception that the Ellis Woods Park is a safe place to visit for people of all ages. A positive public perception is crucial to the successful development and operation of a municipal park and recreation system. Effective maintenance is the foundation for a safe and attractive public space. The mere patrolling of parks does not in itself provide safe public places. Safe and secure parks have the following factors:

- ❑ Efficient and effective routine maintenance
- ❑ Timely response and resolution to park problems
- ❑ Elimination of hazards with proper marking until the timely repair
- ❑ Positive public image
- ❑ A public presence through a desirable level of park visitors
- ❑ A record and documentation of routine and emergency maintenance procedures, repairs and improvements
- ❑ Park signage with directions, rules regulations and information that is attractive, well positioned but not intrusive upon park visitors

The following approach to park maintenance is based upon public opinion, existing township maintenance, information provided by the Township and estimates and projections from park maintenance practices elsewhere. As the Township undertakes the maintenance and operation of Ellis Woods Park, information and data will emerge that will enable the Township to fine tune planning, directing, controlling and evaluating park operations.

## Purpose of the Operation and Management Plan

Maintenance is the single largest recurring expenditure in parks and recreation. Over the lifetime of a park, about 75 percent of its cost is in maintenance while only about 25 percent is in acquisition, development, design and construction (Lay, 1978).<sup>1</sup>

This operations and maintenance plan sets forth a strategy for managing the park once it is developed. The plan should serve as a working document to be used, based upon the history of park maintenance in the recent years and revised as the park is improved. The following topics will be addressed in this chapter:

1. Park Mission
2. Recreation Opportunities
3. Maintenance and Security
4. Management Recommendations

### 1. Ellis Woods Park Vision and Mission

#### ELLIS WOODS PARK

##### Vision Statement

Ellis Woods Park is a community hub in East Coventry Township. The park helps the community, family and friends to enjoy time together or in solitude in a convenient, charming outdoor setting that is close-to-home. The park retains the natural character of the Township so desired by the residents living within a rapidly developing region. The park provides the people of East Coventry Township the opportunity to enjoy nature and the beauty and scenery of their community; get away from it all; exercise and lead a healthy active life style; participate in events that enrich family and community bonds. It serves a legacy for generations yet to come.

##### Mission Statement

East Coventry Township is dedicated to providing quality visitor experiences in Ellis Woods Park by providing an attractive, safe, and clean environment with quality facilities and superb public service.

### 2. Ellis Woods Park Recreation Opportunities

East Coventry Township is committed to providing a variety of recreation opportunities for the residents. The park will enable the Park and Recreation Board to provide more and varied services to the community through Ellis Woods Park. Survey respondents indicated that they would use the park year-round with peak use in the spring and summer on weekends and evenings. Most people in the community said that they would like to use the park to enjoy nature. Although the general public overall is not interested as a group in organized recreation and sports, this is an important part of community life in East

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<sup>1</sup> Lay, Francis. 1978. Management of Grounds or Site Operations Manual, **Manual of Site Management**, Environmental Design Press. p4.

Coventry. While the size and topography of the site does not lend itself to development as a sports complex, the open areas do afford the opportunity for players to practice and train in sports.

Ellis Woods Park offers recreation opportunities including enjoyment of nature; exercise and fitness; drop-in recreation to small scale organized events. Tots and teens through senior adults will be able to enjoy a host of activities in the great outdoors. Cultural activities, games, play, socializing, picnicking, family gatherings, rest and relaxation will be within minutes of most township residents.

***Fitness/Wellness*** – Fitness extends lives, improves self-image, reduces health care costs, reduces isolation, and makes people happier. According to the U.S. Surgeon General, the top public health issue is the lack of activity among the American public. One of the most important things that communities can do to help in this cause is to provide attractive, accessible areas for people to walk, jog, and run. Ellis Woods Park is the ideal location for this in East Coventry.

***Special Events*** – The open areas and support facilities such as parking and restrooms offer the potential for community events that are on a small scale.

***Picnicking and Outings*** – A pavilion and picnic tables will be installed in the park. Because of the restrooms and parking, the park will be desirable for group outings providing both a public service and revenue for the park through rental fees.

***Family Play*** – The playground, separated for pre-schoolers and youth, is expected to be a destination for people of all ages from young children to grandparents for visits with their grandchildren. Expected playground visitors include citizens using the tot lot on a daily basis, people in the groups reserving pavilions, day care centers, school groups, scouting groups, and families coming to the park for team sports.

***Teen Hub*** – Since the park adjoins the Township Building, it is an ideal site to serve teens. The Police Department provides a discreet but nonetheless powerful presence. This type of presence offers teens one of the most desirable forms of supervision in which peer pressure on teens to engage in negative social behavior is deterred by nearby adult authority. The development of the teen hub would be a special initiative that should involve a task force composed of teens and park planners with an adult liaison to the Park and Recreation Board.

***Self-Directed Activities*** – With the hectic lives we all lead, having a place to go on our own is important. Ellis Woods Park offers an important respite for people to enjoy on their own terms at their own pace whenever they want during park operating hours.

***Trails*** – Ellis Woods Park has areas for walking and hiking as well as a paved path. Walking is the chief form of exercise in the United States. The Center for Disease Control has called upon communities to develop safe and attractive pathways for people to use throughout their lifetime. This will help people of all ages to engage in a healthy activity that will extend their lives and enable them to be healthier, happier and more productive citizens.

***Restrooms*** – Support facilities are important to park visitors. Restrooms are also the standard by which park visitors judge the entire park system. Clean, bright restrooms are crucial to positive public perception about the park in terms of desirability and safety. If the restrooms are clean, people value the park. The importance of the design and maintenance of this facility cannot be overstated. The fact that the restrooms will be part of the municipal building is very desirable in terms of security, supervision, routine inspections, and maintenance tasks and costs.

### 3. Park Maintenance and Security

Routine scheduled maintenance provides the foundation for effective park security. A park that is well designed and maintained attracts visitors. Parks that are well used and cared for are respected by people in

the community. When park visitors see that a facility is well cared for, the risk of vandalism and other undesirable social behaviors tends to diminish. Parks that are not well tended get fewer visitors and higher levels of vandalism.

Maintenance management is the process by which East Coventry Township plans, directs, and controls the care of the park and recreation facilities. Ellis Woods Park should reflect an effective level of service; an inviting, clean and attractive appearance; and the reality of fiscal and human resource limitations of the Township. East Coventry Township has experience in park maintenance in Tow Path Park as well as in finding creative ways of dealing with limited resources and the significant public expectations of citizens living in a small township.

## Management Challenges and Opportunities

***Function: Community Park*** – Ellis Woods Park will be the township’s first traditional community park. While the Township already maintains the Tow Path, the park is a different type of facility.

***Variety of Facilities and Services*** – Ellis Woods Park facilities require a number of maintenance management operations ranging from forestry to turf maintenance. Each operation represents a special expertise. Most of the maintenance tasks will be performed in-house by the Public Works Department. Some tasks that require special equipment expertise of licensing as well as those that have a higher level of risk could be out-sourced. These include high tree maintenance or herbicide and pesticide spraying. Ellis Woods Park will serve individual park visitors; visitors who come to the park for special events and activities; organized sports groups who use the open areas for practice; playground visitors; teen hub; and groups that will come and go as pavilion renters.

***Current Operations*** –The Township provides maintenance in the Tow Path Park through the Public Works Department. The Department has two full-time and two part-time workers. Essentially, there are three workers on staff during hours of operation. The crew performs all mowing and pavilion repair in Tow Path Park. Ellis Woods Park maintenance is projected to become a part of the maintenance operations of the municipal complex at the Township Building.

In 2003, the Township implemented a cost tracking system through Quick Books for township equipment. Public Works tracks where work hours are spent. In accordance with government regulations, all equipment over \$500 will be depreciated beginning in 2004.

***Importance of Partnerships*** – Partnerships are crucial to modern parks and recreation operations. Establishing partnerships with other organizations in the public and private sectors will enable the Township to offset operating costs and foster stewardship for the park. Facilities that offer partnership potential include the playground, pavilion, paths, teen hub and special events. Special projects such as landscaping and beautification could also be set up for partnerships.

***Volunteers*** – East Coventry Township is a model of volunteerism in parks and recreation. At present the Parks and Recreation Committee provides virtually all support for parks and recreation in the community to complement the Township’s investment in land and financing for capital development and the Public Works operating budget. Volunteers are often considered the means to managing parks and recreation at the least cost. Consideration of expanded volunteer efforts for Ellis Woods Park merits consideration within the reality of how much more the Park and Recreation Committee could take on as volunteers themselves. Although volunteers are important, they are not free. Volunteers for defined tasks or programs often require recruiting, training, supervision, coordination, support, and recognition. Someone has to be in charge of overseeing volunteers. Policies need to guide volunteerism; otherwise volunteer efforts can get out of hand and run counter to the public good with respect to park operations.

## Key Elements of Successful Maintenance

To sustain care of Ellis Woods Park well into the future, it is important to formalize operations into a planned maintenance management system. To put into practice a planned maintenance management program, East Coventry Township needs to:

- ❑ Adopt the proposed mission statement that underscores visitor safety and clean and attractive park conditions. Adopt the following maintenance goals in the section below.
- ❑ Formalize the maintenance management system.
- ❑ Agree on an approach to priorities and work scheduling within Public Works.
- ❑ Plan to allocate increased resources in the budget to support park operations.

## Maintenance Goals

***The goal of park maintenance is to provide a clean, orderly and attractive appearance of Ellis Woods Park for the healthful, safe and enjoyable use by the community through implementation of an efficient and effective management program.***

The following action steps could serve as the written guide for the township's park maintenance operations. It should apply to township employees as well as potential contractors.

1. Maintenance tasks will be accomplished in a way that does not endanger the health or safety of the employees nor the public.
2. All maintenance tasks will be performed as quickly and economically as possible without any loss in efficiency.
3. All equipment and materials will be operated and maintained in such a way as to insure safe, effective use and long life.
4. Work will be scheduled in such a manner as to make the most use of the resources of other community organizations who are involved or who may become involved.
5. All maintenance will be accomplished in a manner displaying respect and concern for the environment as well as public and private property. Maintenance practices that are rooted in a strong conservation ethic are to be instituted.
6. Preventive maintenance will be used in a continuing effort to avoid major problems and correct minor ones.
7. All maintenance work will be performed with a sense of pride.

## Maintenance Standards

Maintenance standards set forth the level of care that park and recreation facilities receive.

***Importance of Assigning Maintenance Standards*** – Assigning maintenance standards will enable the Township to maintain different areas of Ellis Woods Park with respect to needs and resources. Townships have a tendency to try to maintain all facilities at the same level of maintenance. This is both costly and unnecessary. With a small staff and limited financing available, targeting the level of care would enable East Coventry Township to direct resources to the highest need and the greatest public service. The beauty of establishing the maintenance standards is that it provides a common frame of reference for all involved from maintenance staff through administration to elected officials and the citizens. The common agreement facilitates discussions and communications about the park. It provides a sound basis for setting fees and charges. It also enables the Township to communicate with the public about the park,

maintenance requirements, and the capacity of the Township to undertake additional citizen demands on the park.

The public has a tendency to want a manicured appearance in community parks. Consideration should be given to establishing a more natural maintenance such as meadows, which are better for wildlife and habitat with the bonus of being less expensive. It is essential to inform the public about the requirements for effective maintenance as well as for naturalized maintenance. The results of the survey show that the citizens are interested in a natural appearance in the park.

***National Standards: An Approach*** – The National Recreation and Park Association<sup>2</sup> offers a classification system for maintenance standards with six modes. Modes refer to the “way of maintenance” ranging from most intensive to least intensive. It is perfectly acceptable and it makes a good deal of sense to establish different modes of maintenance within different areas of the park. East Coventry Township can use the modes as guidelines to direct resources towards where the need is greatest and the benefit the most. By making a decision on the level of maintenance the park will receive, the Township will establish a common framework that park management, partners, community organizations, and volunteers will operate from. Everyone will be “on the same page” when it comes to how the park will be maintained. This will enable elected and appointed officials and parks and recreation management to set policies on use, fees and charges, volunteer requirements, staffing levels, contractual service requirements, and other issues that may emerge. The modes range as follows:

- ❑ Mode I - State of the Art Maintenance
- ❑ Mode II - High Level Maintenance
- ❑ Mode III - Moderate Level Maintenance
- ❑ Mode IV - Moderately Low Level Maintenance
- ❑ Mode V - High Visitation Natural Areas
- ❑ Mode VI - Minimum Level Maintenance

Given the level of staff and resources available the park should generally be maintained according to Mode III. Variations are related to the Township’s philosophy of park appearance being most important. Tasks such as overall park cleanliness warrant Mode I maintenance. As the park is developed, the Township might want to assign different modes to other specific units in the park. For now with the resources available, Mode III is acceptable and desirable for East Coventry overall.

Maintenance requirements and costs could be tracked over time to determine how they should be adjusted for planning, operational and budgeting purposes. In keeping with East Coventry’s investment in Ellis Woods Park, the following standards are proposed:

***Turf Care*** – Mode III. Mowing every seven to ten days.

***Litter Control*** – Mode I. Litter is picked up daily during peak season, twice a week during non-peak. For special use facilities such as a picnic pavilion, the permittee should be responsible for litter pick-up while East Coventry Township would remove it from the park.

***Forestry*** – A forestry management program should be developed. The forestry program would provide a short, medium and long-range management program for this important asset of Ellis Woods Park. High tree maintenance could be out-sourced. The Chester County Extension Agent may be able to provide technical assistance in creating a park forestry program. Park trees are also a suitable program for public donations such as a memorial tree-planting program.

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<sup>2</sup> National Recreation and Park Association. (1986). **Park Maintenance Standards**. Alexandria, VA. 59p.

*Disease and Insect Control* – Mode III. When the health or survival of plant materials is threatened or there is an issue of comfort of park visitors control measures may be taken. Disease and insect control is done usually on a complaint basis.

*Surfaces and Paths* – Mode II. When appearance has noticeably deteriorated, the surfaces should be cleaned, repaired, or replaced.

*Repairs* – Mode III. When safety, appearance or function is an issue, repairs are made.

*Inspections* – Mode I - Park inspection should be done daily during peak season. Ball fields and the play equipment require the highest level of inspections.

Playground inspections should be based upon CPSC (Consumer Product Safety Commission) guidelines. The equipment manufacturer generally provides inspection sheets for use by municipal employees. These should be used as the record keeping system for East Coventry Township and properly filed to document maintenance performed by the Township.

*Teen Hub* – Mode I. A maintenance impact statement should be developed for the teen hub during the planning stage in order to determine the requirements for keeping the hub in tip-top shape, in part by enlisting teens to adopt it.

*Restrooms* – Mode I. Should be done at least once per day. Special events or times of high use may warrant more than one service per day.

## Formalizing the Maintenance Program

It is important to formalize the maintenance operations through a written established maintenance management system. A formal maintenance management plan is a key component of park security. This would include a workload cost tracking system to identify where labor and dollars are directed in Ellis Woods Park as township parks overall. Information about cost centers allow the township management and elected officials to make sound decisions about budget, personnel, policies, user fees, and park improvements. Formalizing a park maintenance management program is especially important when park maintenance falls within a Public Works Department. Park and roads often require work done at the same time especially in the spring. Setting priorities for accomplishing park maintenance tasks within this system needs to be spelled out.

## Estimating Maintenance Budget Based on Standards

In order to estimate a budget for maintaining Ellis Woods Park, projections should be made based upon national standards, township experience, and cost tracking for labor, materials, and equipment. Maintenance requirements will be projected. In any mathematical calculation, adjustments need to be made as more specific information about work hours, task time, and equipment becomes known. The following information is presented as an estimate and departure point for formalizing a maintenance management plan for Ellis Woods Park. This is based upon the maintenance standards presented above and preliminary information provided by East Coventry Township. Table 7.1 presents the cost estimates for labor and equipment by task and frequency for paid labor.

## Cost Basis

The maintenance wage rates ranges are set at \$20-21 per hour for full-time staff with 37 percent required costs for items such as worker compensation, payroll taxes etc. for an hourly rate of \$29 per hour for budgeting purposes. Part-time staff rates are \$15-17 plus 10 percent for payroll requirements for an estimated budget rate of \$19 per hour. Equipment rates are projected based on Penn DOT specifications at \$12 per hour for small equipment and \$33 per hour for major equipment. These rates are used to show a



conservative estimate of park maintenance requirements. Numbers are in 2003 dollars and do not contain future estimates for wage or other cost increases.

Table 7-1 Ellis Woods Park Maintenance Tasks: Labor and Equipment						
Cost Formula		Work Hours X Frequency X Hourly Rate = Total Cost				
Task	Units	Work Hours by Task		Frequency X Hours	Hourly Rate	Total Cost
		Unit/hrs.	Total hrs			
<b>Mowing</b>						
Labor	10 acres	3/hr	4	30 X 4 = 120	\$29	\$3,480
Equipment		"		"	\$33	3,960
Total Mowing						\$7,440
<b>Trimming</b>						
Labor	10,000 LF	1,000/hr	10	15 X 10 = 150	\$19	\$2,850
Equipment	"	"		"	\$12	1,800
Total Trimming						\$4,650
<b>Aeration</b>						
Field						
Labor	1 fields	8 hr.	8	8 X 1 = 8	\$29	\$232
Equipment	"	"		"	\$33	264
Total Aeration						\$496
<b>Weed Control</b>						
Labor	1 field	2/hr.	2	2 X 2 = 8	\$29	\$232
Equipment	"	"	"	"	\$33	264
Total Weed Con.						\$496
<b>Seeding (slit)</b>						
Labor	1 Field	1/16 hrs	16	1 X 16 = 16	\$29	\$464
Equipment	"	"		"	\$33	528
Total Seeding						\$1,092
<b>Litter Control</b>						
Pick-up	Focus Points	4 hours	40	40 X 4 = 160	\$19	\$3,040
Labor	2 barrels	1/14 hr.	1/2 hr.	1/2 X 120 = 60	\$19	\$1,140
Equipment	"	"	"	"	\$33	1,980
Total Litter Control						\$6,160
<b>Tree &amp; Shrub Care</b>						
Contract	Park area	Cyclic				\$1,500
<b>Trails</b>						
Aggregate	.25 miles					
Annual Preparation						
Labor		72 hrs/mi	18	1 X 18 = 18	\$48 (2)	\$864
Equipment			18	1 X 18 = 18	\$33	594
Routine						
Labor		20hrs./mi	4 hrs	8 X 4 = 32	\$19	608
Equipment			32 hrs.	32	\$33	1,056
Total Trails						\$3,122
Inspection	Park.	2	2	2 X 52 = 104	\$29	\$3,016

Cost Formula		Work Hours X Frequency X Hourly Rate = Total Cost				
Task	Units	Work Hours by Task		Frequency X Hours	Hourly Rate	Total Cost
		Unit/hrs.	Total hrs			
Picnic Facilities						
Benches, tables						
Annual Preparation	5	4 hrs/unit	220	1 X 20 = 24	\$19	456
Routine		.25 hrs/un	1.25	3 X 1.25 = 4	\$19	78
Picnic Pavilion						
Labor	1	1	1	1 X 30 = 30	\$19	570
Grills	2					
Annual Preparation	2	4/unit	8	1 X 8 = 8	\$19	152
Routine		.8/unit	1.6	1.6 X 5 = 8	\$19	152
Total Picnic						\$1,408
Restrooms	Part of township building maintenance					
Total				678 work hrs		\$26,258
Non-routine maintenance	10% Budget			68 work hrs.		2,625
TOTAL labor & equipment				746 work hrs		\$28,883

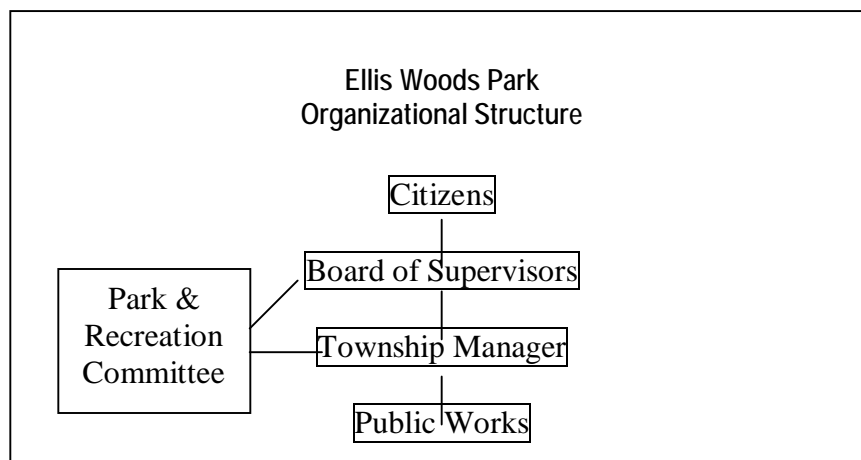
## Staffing and Organizational Implications

The required work hours total about 746, the equivalent of about 19 workweeks annually. It is important to consider however that the tasks are cyclical with peak and non-peak seasonal requirements. Workload is high in the spring, high to moderate in the summer and fall, and less intense in the winter.

The budget projections will help in setting user fees and charges for programs and services as well as potential field use fees. When citizens have information about real costs, they are usually more supportive of user fees for township services that benefit individual park users and not the population as a whole.

These projections serve as a benchmark to track progress as park maintenance develops a history of actual time and expenses for Ellis Woods Park.

Since there is no park and recreation director, the Park and Recreation Board plays an active role in park operations. The Township Manager will serve as the day-to-day contact and as the coordinator of park maintenance between the Park and Recreation Board and the Public Works Department.



## Cyclic Maintenance

In addition to daily, monthly, seasonal and annual repairs, the park requires cyclic maintenance repairs. Cyclic maintenance deals with the normal replacement of a capital item such as a roof. Cyclic repairs are a function of weather, use, and other circumstances such as natural events. The cyclic repairs are shown in the following table. Because the time frame is years away, projecting actual costs is not possible. The American Public Works Association recommends budgeting two to four percent of the development costs annually to establish as a capital reserve account for cyclic repairs. Advances in technology will also impact the future costs based upon changes in design and materials.

Table 7-2 Ellis Woods Park Cyclic Repairs	
Item	Time frame
Pavilion	20 years
Re-paving	15 years
Playground	10 years
Furniture	15 Years

## Financing

Tables 7-3 presents the projected budget for Ellis Woods Park. This budget comes out to about \$2200 per acre cost. This is in line with similar townships elsewhere in which per acre maintenance costs range for about \$1500 to 3,000. As the Township adds facilities to the park, the maintenance requirements would increase. Therefore the Township should project additional financial and human resource requirements as well as potential revenue sources for every capital improvement. Parks are usually forever and evolve over time. A well-known and highly regarded example is New York City's Central Park, which is about 150 years old and has had many phases of development and rehabilitation. The costs projected below are for the early years of the park as it is developed over the next five to ten years approximately.

Table 7-3 Ellis Woods Park Projected Operating Budget	
Personnel	\$15,964
Equipment	10,293
Insurance	under township policy
Patrolling	with township Police
Park Material and Supplies	8,000
Limestone screenings	1,000
Seed	500
Fertilizer/Weed control materials	300
Tree Care Contract	1,500
	\$37,561
	3,756
Contingency	\$41,317
TOTAL	\$54,955.00
CIP Reserve Budget – 2% of development costs annually in fund dedicated to cyclic repairs and park improvements. Based on \$1 million for development.	\$20,000

Table 7-4 presents the revenues for Ellis Woods Park. Typical revenue generators include ball field use fees, tournaments, ice rinks, swimming pools, camping, and recreation programs. Based upon the type of park and facilities that comprise Ellis Woods Park, revenue projections will not cover operating coats and will require township support.

Table 7-4 Potential Revenue Sources	
Item	Projection
Pavilion rental at \$75 per day for 20 days.	1,500
Friends of Ellis Woods Park 100 memberships @\$25	2,500
Sponsorships	1,000
Potential program fees from two special events. Could go higher with more events.	1,000
<b>TOTAL Projections</b>	<b>\$6,000</b>

## 4. Management and Security Recommendations for Ellis Woods Park

East Coventry Township could consider the following strategy for enhancing the operation, management and financing of Ellis Woods Park:

3. Plan for increased funding for parks and recreation to support the investment in the development of Ellis Woods Park. Recommend a budget appropriation commensurate with maintaining the park at the level desired by East Coventry Township.
4. Adopt a fees and charges policy. Conduct a telephone poll of the fees surrounding townships charge in order to be fair and equitable.
5. Coordinate with the Police Department regarding patrolling and protection. Ask that the Township Manager be the coordinator for this effort.
6. Establish a formalized record keeping system to document maintenance tasks and report the repair of park problems. Build upon the existing record system of East Coventry Township Public Works Department. As the Township moves forward in the development of its computerized financial management and capital improvement programs, coordinate and include all parks and recreation information management requirements. Professional park and recreation management software is on the market and may be compatible with the township goes in computerization.
7. Establish and implement a policy of repairing vandalism within 24 hours.
8. Develop maintenance plan for parks within Public Works to insure that priorities are equitable and work on parks is done within a proper timeframe.
9. Consult with the Montgomery County Conservation District to determine if they have any advice or suggestions for managing this park.
10. Start a Friends of Ellis Woods Park organization. This could be a sub-committee of the Park and Recreation Committee. It could also be an entirely separate companion board that could obtain 501-c-3 IRS status for fund-raising purposes. Because of the Township's size, such as organization could be a Friends of East Coventry Township Parks to have a broader appeal and use as the umbrella organization for all park support groups. They could assist with programming, seeking grants and corporate sponsorships of programs.
11. Establish a risk management plan based upon a formalized maintenance management program. Without a formalized system of tracking and reporting maintenance, the Township is exposed to

liability. An effective way to reduce exposure to lawsuits is through effective maintenance supported by a record keeping system documenting the level of care of the park facilities. Have the Township solicitor review all forms to insure that they represent reporting in the township's best interests. Coordinate with the insurance carrier to insure that all park design and operations comply with carrier guidelines. This could include an annual "walk-through" with the carrier at Ellis Woods Park.

12. Establish a teen committee to work on the planning of the teen hub at an appropriate time.
13. A fund for capital park improvements should be established. This should be 2-4 percent of the capital improvement costs of park development. Investments in parks result in:
  - ☐ Higher property values
  - ☐ Attraction of new businesses
  - ☐ Retaining existing businesses
  - ☐ Stimulation of the local economy
  - ☐ Higher quality of life for the residents
  - ☐ Community pride
  - ☐ Deterrence of anti-social behavior
14. Consider developing a gift catalog as part of fundraising efforts for the park. The catalog could contain a range of potential "gifts" to the park from small items such as bricks right up to the pavilion or playground. The catalog should be a bright, attractive eye-catching design. Professional layout and graphics would be ideal.
15. Create a Mandatory Dedication of Park Land Ordinance. In a developing area like East Coventry Township, such an ordinance would be a valuable tool in insuring that there is adequate parkland for recreation for future generations. In order to establish such an ordinance, the Township should have a park, recreation and open space plan that sets forth the standards for park land or fees-in-lieu of the dedication of park land. The plan and subsequent ordinance should be in compliance with Pennsylvania's Municipalities Planning Code.

***East Coventry Township***  
***Ellis Woods Park***  
***Report: Public Opinion Survey***

Toole Recreation Planning  
*in association with*  
YSM

## I. Introduction

East Coventry Township conducted a direct mail survey to assess public opinion about developing Ellis Woods Park. This is an 18-acre park next to the Township Municipal Building.

The Township wanted to determine the opinions, ideas, and concerns of residents about parks and recreation, particularly regarding Ellis Woods Park. By understanding the citizens' needs and interests, East Coventry will be able to direct its planning efforts and resources for the benefit of the public as well as the conservation of natural resources most effectively.

## II. Process

**Organization, Goals and Survey Instrument** – East Coventry Township retained YSM and Toole Recreation Planning as the planning and design team for the park master site plan. The consulting team developed the survey instrument, developed and conducted the survey process, and designed and implemented the tabulation and findings. The goal was to obtain citizen input regarding:

- ❑ Use and schedule of use of Ellis Woods Park
- ❑ Preferences regarding the type of park to be developed
- ❑ Assessment of public opinion about current level of parks and recreation service in East Coventry
- ❑ Facility preferences and priorities
- ❑ Financial support

**Random Sample** – A random sample of 500 households was drawn from East Coventry Township's residences. The goal was to achieve a high level of confidence and a low margin of error in the survey findings to insure that the results statistically represented East Coventry Township as a whole.

**Distribution** – Respondents received a pre-survey letter informing them that they would be getting a questionnaire the following week. The pre-survey letter informed the respondents about the project, the importance of their response, and the timeframe. The survey was mailed out via first class mail along with a cover letter and a self-addressed stamped reply envelope the next week. One week after the surveys were mailed, a follow-up post card was to be sent as a reminder for people to return their surveys or thanking them if they already had. A copy of the survey materials used for this study is included at the end of this report.

## III. Survey Follow Up

The surveys were distributed in October in order to generate the response before Thanksgiving. In addition to the postcard reminder, follow up included telephone calls to the respondents who had not yet returned their surveys. Up to three calls were made to the respondents asking them to complete and return their questionnaire. Follow-up was conducted with 252 households. Of that 23 percent could not be reached effectively yielding a sample size of 442. To achieve a level of confidence of 95 percent with a degree of accuracy of +/- 5 percent, 205 completed surveys were needed. Completed questionnaires exceeded the required number at 248. Those who refused were busy or not interested in the park or said they would return the survey but never did.

## IV. Return

By January 20, 2003, the surveys were submitted to the planning team for tabulation, analysis, and reporting. This is a return rate of 56 percent. The yield produced exceeded the number required to achieve a statistical level of confidence of 95 percent +/- 5 percent.

### *Respondent Characteristics*

#### **Employment Status of Household**

About 52 percent of responding households had two adult wage earners. Another 20 percent had one adult wage earner and one homemaker. Retired adults composed 23 percent of the respondents.

#### **Children**

About 57 percent of the responding households have pre-schoolers, elementary schoolers, middle school age children, and high schoolers. One household responding in ten had a single head of household.

#### **Disabilities**

Only four percent of respondents had a person(s) with a disability living in the household.

## V. Responses to the Questions

The following charts provide the survey responses regarding:

- ☐ Household Use of Ellis Woods Park
- ☐ Park Type Preferences
- ☐ Preferred Times of Use
- ☐ Impression of Level of Service and/or level of Parks and Recreation in East Coventry Township
- ☐ Facility Development Preferences and Time Frame
- ☐ Opinion on Ways of Paying for Ellis Woods Park